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BEACON IN THE NIGHT: CONTESTED SPACE AND REGIONAL CULTURE
ON THE CENTRAL OREGON COAST

by

Melissa Román

A thesis submitted in partial fulfillment
of the requirements for the degree

of

MASTER OF ARTS

in

American Studies

UTAH STATE UNIVERSITY
Logan, Utah

2003

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ABSTRACT

Beacon in the Night: Contested Space and Regional Culture
on the Central Oregon Coast

by

Melissa Román, Master of Arts
Utah State University, 2003

Major Professor: Dr. Jan Roush
Department: American Studies

Regional identity and contested space were explored through the lens of four central Oregon Coast lighthouses. These beacons offered a look into the settlement of the Pacific Northwest and the complexity of contested space. Not only did the sentinels sit at the edge of a human battle with nature, but the keepers and their families lived in problematic conditions as well (both domestic and environmental). The living quarters and outbuildings provided by the U. S. Lighthouse Board illustrated the cultural tastes of the period and the distillation of those tastes throughout the country as the nation expanded into and throughout the west. Further, these buildings were constructed within the pseudo military structure of light-tending and governed via principles predetermined by the U. S. Lighthouse Establishment. The daily lives of the lighthouse families conveyed the challenges of new settlement in, and the impact of lighthouses on, the West Coast.

(197 pages)

DEDICATION

To my grandmother,
who was always ready for a card game,
and my mother,
who repeatedly fielded the question,
"What does Melissa DO all day?"



ACKNOWLEDGMENTS

It would be difficult to thank everyone who provided insight and support throughout this research process, but there are several people I would especially like to thank. Jane Maine, executive director of Yaquina Lights, Inc., who made it possible for me to climb the stairs and ladders leading to the lantern rooms of both the Yaquina Bay and the Yaquina Head Lighthouses, thank you for your patience and helpfulness. Ann Hill and Jodie Wheeler of the Lincoln County History Museum and Library who pulled sources, photocopied articles, and scanned old photographs no matter how often I asked or how far away from the museum I was, thank you for being electronically savvy. Phyllis Steeves of the U. S. Forest Service, took the time to listen to me when I really needed to wax academic and then provided me with a wealth of information and an outrageous number of photocopies from the *Passport in Time* interviews, thank you, Ms. Steeves, for your enthusiasm. Wayne Wheeler, president of the U. S. Lighthouse Society, who provided me with photocopies of the Tillamook log books, thank you for being so helpful.

I would also like to thank my thesis chair, Jan Roush, for her support, patience, and willingness to read my drafts again and again and again. I give special thanks to my grandmother and my mother. Whenever new books arrived through the mail, my grandmother listened as I extolled their virtues. My mother gave me a place to stay during my fieldwork and continually supported me as I worked my way through the maze of fieldwork—even when she was not sure where I was or what I was doing. My thanks to you both for making my research easier and more pleasant.

Melissa Román

PREFACE

When the time came to define my thesis topic, I found myself in a quandary. I wanted to study lighthouses; I attended graduate school in a desert. Lighthouses and the desert have little in common, at least on the surface. Studying the country's sentinel from a point so far inland seemed problematic but worthwhile. I grew up on the Oregon Coast. As a teenager, I stood on the cliffs of Newport, Oregon, and watched the Yaquina Head lighthouse flash off and on in the dark. Somewhere nearby a foghorn sent its deep, resonant warning piercing through the mist and gave me comfort. Years later I returned to those defining moments to decide the range of my thesis inquiry. Since I intended to include fieldwork as a large part of my folklore research, I wanted to investigate a familiar place. I wanted to go home. Lighthouse and the Oregon Coast made an irresistible combination for my thesis.

Unfortunately, as befitting a landlocked area, the library at Utah State University contained few sources useful to my investigation of lighthouses. Academic journals offered nothing. Most often when I broached my research ideas with a librarian, I heard, "This is a desert. We do not have any information about lighthouses here." They were always right—on both counts. The restrictions of my topic and location made my preliminary research challenging and largely unproductive in terms of final product. Instead, I turned to amazon.com and the World Wide Web for a wider range of resources. Books arrived through the mail regularly as I repeated searched for information.

Initially, my biggest potential for gathering information about lighthouses came from "coffee table" books, beautiful photographic reproductions of national

and international beacons. These collections frequently included historical details, structural information about the towers, a chapter on the evolution of the lights themselves, and technical specifications for the individual lighthouses featured in the volume. Although these publications were, in and of themselves, fascinating, I wanted and needed a different kind of scholarship, something more substantial and oriented more toward academic rather than popular literature. Eventually my research broadened into the kind of data I needed, although not until I was on the Oregon coast and my topic more defined.

While at Utah State I continued to search through the various indices and engines available; however, I never found an analysis of lighthouse life or a study outlining the impact these stations had on the families that tended the beacons. Not even sociological resources provided an examination of what it meant to live and work at a lighthouse. Although the lack of pre-existing scaffolding was, in some ways, discouraging, the absence of any previous studies indicated that the doors remained open for my own theories. After six months of preliminary research I was anxious to move into the field.

Crating the shelves of lighthouse books and folklore theory I had accumulated in two semesters of graduate school, I loaded my car and headed for the Oregon Coast. Focusing on the central coast region provided unexpected opportunities for study. In narrowing the scope of my research to the unique attributes of the Pacific Northwest, and Oregon in particular, I inadvertently fell into a complex analysis of regional culture, vernacular architecture, and contested space. The connection of settlement, fashion, human goals, and contested environments

grew more and more intimately intertwined as my fieldwork progressed.

Residually, my interest in tracing the various lines of influence on the formation of the central Oregon Coast as a regional identity also continued throughout the writing process.

Once I had settled in and unpacked my books, I turned to personal interviews as a way of gathering data concerning the contemporary impression of lighthouses as navigational aids. I sent a "Letter to the Editor" to several local newspapers requesting assistance. In the letter I explained that I was in the area for approximately three-and-a-half months to research lighthouses along the central Oregon Coast. I asked the editors to publish my letter inviting anyone with stories about the stations to contact me. Few people called.

Nevertheless, whenever I did get a response, I dutifully grabbed my cassette recorder and traveled to wherever my informant was. Interviewing, however, proved unfruitful. Talking with my informants provided little information about the human battle with nature that I sought, and I was not sure why. All fieldwork included interviews, or so I thought at the time, yet whenever I made the mistake of either using the term "contested space" or answering any questions about why I was studying lighthouses, I got puzzled looks followed by silence. The idea that lighthouses are located at a point where humans are in conflict with the sea is either too foreign, or too technical (I was never sure which), for most of the people I met. Not even my family, with whom I talked daily, ever really understood what I was doing.

Although each person I interviewed was very kind and as helpful as he or she could be, I was not finding any inference between ships seeking safe port and the lighthouse acting as a navigational tool in terms of contested space that I needed. Instead, what often happened during these conversations was my own growing recognition that, even after my preliminary research, I still did not understand which questions I needed to ask. My focus was too broad, and I remained a novice when it came to lighthouses and the purposes they served.

In an age when Global Satellite Positioning (GPS) can pinpoint exact locations and radar buoys sit low in the water, the role performed by a lighthouse is becoming a quaint and distant memory. While the beacons continue to serve as day markers and recognizable signs of location, their primary operation of splitting the darkness and warning of imminent danger has been supplanted by complex computer systems and high-tech flotation devices. Instead of gathering information about the lighthouses, I was getting stories about Loran C and GPS. Any ideas, thoughts, or narratives I came across relating to the local lighthouses I was exploring came from people who had a nostalgic fondness for the lights and an interest in history, not necessarily from people who had used the beacons to set a course.

Fortunately for me, one of the gentlemen I interviewed inadvertently pointed out my ignorance and reminded me that lighthouses were designed for sailing ships. Although the connection now seems rudimentary, I have to admit the correlation had not occurred to me on my own. Not growing up in an era when four-masted barquentines crossed the major oceans, I had missed their particular dependence on

the beacons marking the coastline as well as the impact their unique demands and limitations had on my research.

Given this adjustment, I quickly restructured my examination of the central Oregon Coast and the lighthouses in my investigation. What became apparent, as a result of this new insight, was that my examination should not follow the nature of contested space as it is *currently* battled between humanity and the sea but rather how the battle *had been* waged prior to the development of radar, sonar, and radio. I needed to orient my inquiry towards a time when sailing ships required a warning light several miles from a coastline if they were to avoid any near shore hazards. Moving back into the mid-1800s, a time when the four-masted ships started sharing the sea lanes with steamers, highlighted the nature of contested space lying at the edge of where the water meets the land. Shifting the subject of my thesis into the past also made the acquisition of first person accounts more difficult to obtain, which explained why my interviews had not been helpful.

When I finally understood the importance of the sailing ship to my theories of contested space, I went in search of a nautical education. I wanted to appreciate not only how the windjammers had developed, but the principles upon which it operated as well. I found a sailing primer and read about ship handling. I found two books discussing the history of the ship and learned about hull shape, distances traveled, and the harshness of life on a nineteenth century wind-riding vessel. Since my questions concerned the dangers faced by each sailing craft as it left port, I also studied the maritime disasters that had occurred in the north Pacific. I learned the

difference between poor decisions made by captains and the typical hazards of traveling on the sea.

Inasmuch as I was gathering data on so many different fronts, whenever I approached another day of research, I often recognized a new gap in my thinking. Because of this, no single research track framed my examinations. Instead, each avenue I explored brought more questions than answers. While investigating an area I already knew to probe, I found other areas I needed to explore. In this way I recognized the necessity of understanding the cultural ideals of the late 1800s.

Since the West Coast lighthouses were designed with the cultural tastes of an East Coast society in mind, these preferences were automatically forwarded to the stations in the Pacific Northwest by the governing lighthouse board. Such an imposition of taste is particularly true of the keeper's quarters where building designs often reflect housing plans used throughout the country. Concurrent with the transmission of these wider cultural trends, the families tending the stations brought their own traditions to the sentinels and provided social continuity for a growing community. Old photographs of the lighthouses show ladies in big hats, long dresses, and stylish outfits in keeping with Victorian culture—regardless of the wind that whipped across the headland or the difficulty of getting dress supplies in such remote townships. Keeping this in mind, I wanted to understand the Victorian mores dominant in the time period when the lighthouses included in my thesis were constructed.

I searched and found a book written by one of the leading Victorian interior designers and read it through. I also studied wallpaper samples and architectural

principles behind nineteenth century home building. No sooner did I understand that the Lighthouse Board transplanted the East Coast preferences in housekeeping to the West Coast lighthouses than I started to notice that although the plans were the same, the environment was not. The East Coast was a well-established society; the Pacific Northwest was in an early stage of development. I wanted to understand what the first Oregon Coast pioneers found when they reached the shoreline. Aware of the challenge in opening a new area, I went in pursuit of pioneer journals. My thinking at the time was that whatever the new settlers faced when they reached Oregon would be similar to what the lighthouse families confronted when they came to tend the sentinels.

After a month of fruitless searching, I finally concluded that no such journals existed, at least not for the time period I was studying. It was not until I talked with Phyllis Steeves, the Heritage Program Manager for the United States Department of Agriculture, Waldport Ranger District, that I understood why my hunt for local journals had been fruitless. She very kindly pointed out that the coastal area was closed to white settlement until 1855. The formation of the Coast Indian Reservation ensured that the pioneers reaching Oregon went no further west than the Willamette Valley. I had not found any journals from the early homesteaders along the Oregon Coast because there were few Anglo settlers farming along this particular stretch of the sea.

The first of the central coast sentinels, The Yaquina Bay Lighthouse, was constructed only sixteen years after the Coast Indian Reservation was opened to Anglo pioneer settlement. In essence, the lighthouse was constructed just shortly

after non-native communities started to develop. This new discovery sent me on to yet another branch of inquiry. I wanted to understand more about the Coast Indian Reservation, what area was included within its boundaries, how the reservation had been initially formed, and what had happened to the native peoples set aside to create the reserve. The research process continued.

There was always something more to learn and another subject to discover. With every new piece of information, there were still more books to read, more files to search, and another aspect of contested space to consider. I often returned to my lighthouse books for insight and focus.

I read any history of the Oregon lights I could find. I also became a regular at the Lincoln County History Museum and Library. Stacks of photocopies and several books later, I was convinced that my greatest assets in the field did not lie on the shelves and in the files of the local libraries (however helpful the librarians were). For as useful as the written records were, they did not answer questions about contested space as it pertained to the Oregon Coast. Something more was needed. I finally found the missing pieces in my folklore texts.

In their book, *Sense of Place: American Regional Cultures*, editors Barbara Allen and Thomas J. Schlereth define regional culture:

Beneath the surface of this diversity [in defining a region], however, lie several elements that virtually all regionalists would agree are fundamental to a region. The first of this is place: a region is at its heart a geographical entity. What makes a region more than an arbitrarily designated spot on earth is its human dimension.... Thus, the second element of a region is the people who live there and organize their lives within the context of the environmental conditions and natural resources of the place. Because the relationship between a place and its residents evolves through time, the third component of a region is the history of residents' shared experiences in and with that place....

The final element in a region is distinctiveness, both from the areas surrounding it and from the whole (e.g., the nation) of which the region is a part.... That identity, according to Louis Wirth, stems from the fact that people living under similar conditions and in a state of interdependence develop similar traits and a sense of belonging. (Allen and Schlereth 1990, 2)

Within this definition I found one of the strongest threads binding my disparate pieces of research. By restructuring my study toward a specific era in history, my analysis benefited from the additional impact of a young growing country, the settlement of the Oregon Territory, and the needs of shipping on a coast plied by barquentines and clippers. Past events provided a national and cultural context to my theories of contested space.

This refocus on distinctive regional identity became a fundamental theorem in my argument. Although each lighthouse faced its own obstacles in the years when roads were few and communities were separated by long distances, the specific requirements of lighthouse tending contained common links. I began to see the necessity of integrating a "sense of place" along with a regional identity within my exploration of the central coast lighthouses.

Continuing to read my way through the stacks of books in my closet, I came across *The Interpretation of Ordinary Landscapes: Geographical Essays* edited by D. W. Meinig. Meinig's insight into reading the topographic landscape provided the next major theorem in my research. Within his essay, "The Beholding Eye," he explains the evidence afforded by various buildings:

The physiognomy of a house, its size, shape, material, decoration, yard, outbuildings and position, tells us something about the way people lived. Furthermore every house had its particular builder and each has been lived in by particular individuals and families and

something of that, too, may perhaps be read in the landscape. (Meinig 1979, 43)

I began to wonder if the lighthouse buildings themselves, as well as their surroundings and the adjoining hillsides, offered clues to the lightkeepers not found in any file cabinets. Who would know better what it was like to live at a lighthouse than those who tended the station? I began to wonder if studying the buildings and trying to place myself in an earlier generation would help me discover how the lighthouse families lived? It was an interesting question—and an even more interesting challenge. By combining regional identity with vernacular culture, the contested environments I was exploring had a solid framework. At the same time, my research continued to deepen as I began to understand the correlation between regional identity and material culture necessary to the interpretation of contested space. The unique challenges of any given location often determine in what manner the battle over a disputed environment occurs and how that battle is engaged. Understanding this fluidity of requirements, the lighthouse builders adapted the lights to suit each region the sentinels served.

Lighthouses in the southern part of the United States sometimes faced the threat of shifting sandbars. In fact, historically, several of the early beacons were designed for ease of movement in case a storm restructured the ground on which they were built. Screwpile lighthouses (lighthouses resting on what look like spider's legs) or caisson lights (large round tubes set deep into the ground before building the lighthouse atop) established in cold regions faced the threat of ice both from the water and from the air. In certain areas of the Great Lakes, during the harshest winter months, the manned lighthouses were closed to protect the keepers from

being entombed after a freezing rain sealed all windows and doors. In other areas of the United States, offshore lighthouses could be either stag stations or family assignments depending upon the ruggedness of the duty. In each of these stations, the demands and options of the keepers varied, and the nature of contested space was redefined. By confining my research to the Pacific Northwest region I was able to identify the nature of contested space intrinsic to the lighthouses designed for the jagged coastline, as well as the needs of shipping along the Oregon Coast.

One of the remarkable benefits of my extended fieldwork proved to be the opportunity to revisit three of the four lighthouses from mid-spring through late summer. I was able to see the lighthouses not only through the changing perspective of my growing understanding but from an elemental viewpoint as well. There were bright warm days when the sun's light filtered through the glass and heated the lantern rooms. There were other days when fog enveloped the lighthouse tower, crawled across the hills, deepened the already rich colors of the grass, and wrapped the stations in a quiet blanket of isolation.

There were also days when it rained. Overcast and gray, heavy raindrops pelted the windows and turned the roads slick with standing water. There were days when the breeze blew like an unrestrained sense of freedom, powerful and unseen. The rushing energy of the wind swept through the area with a strength that made the tall grasses ripple, the trees sway, and the uninitiated miss a step if they were not braced against the force of it. Throughout the changing weather patterns,

the lives of the keepers and their families started to take shape, and the nature of contested space continued to deepen.

Returning to the lighthouses again and again, I started to notice small inconsistencies that guided my analysis of any data I found. Sometimes these discrepancies were between what I was seeing and what I saw elsewhere. Sometimes they were between what I was hearing and what I was reading. Occasionally, they were between my interpretation of history and someone else's. History rendition became an important part of understanding contested space.

With so few station records extant, recreating the lives of those who tended the lighthouses remained a challenge. Few journal entries are known to exist. Those records that have survived were written by the keepers during their watch and offer little in the way of insights into daily life at the station. Official records are stored in the National Archives and were inaccessible for my research. However, I did find that a wealth of information is contained in two major oral history projects: one, a *Passport in Time* project, conducted in 1995 for Heceta Head, and a second, for Yaquina Head, completed in 1999 by Ann Martin for the Bureau of Land Management (BLM).

The tapes and transcripts from these two projects provided many anecdotes and memories of the lighthouse children, keepers, and maintenance personnel associated with the individual lighthouses in my investigation. In forming my analysis, I combined excerpts from these interviews with information from U. S. Lighthouse Establishment service reports and a reproduction of the 1902 handbook of instructions to lighthouse keepers. Newspaper articles, local histories, pioneer

journals, and station histories round out the picture of these coastal beacons.

However, to really gain an understanding of life at the individual stations, I walked.

I walked around the outbuildings, over the paths, through the halls, up the driveways, and down the beaches. When I was not walking, I climbed. I climbed the hills. I climbed the stairs. I climbed the 130-year-old iron ladder. I looked out of the lantern room windows, and I wondered. Did the keepers ever take a few minutes from their polishing to watch their children run across the lawn? How did the wives store provisions in a kitchen with so few cupboards? Where were the gardens? How did the families travel to town? I searched for answers in any records I could find.

Walking across the lighthouse grounds day after day, I had discovered that although humanity's battle with nature certainly plays an important part in this study of contested space, to regard the conflict between humans and the sea as the *sole* source of contested space at a lighthouse is to operate within an incomplete paradigm. There were social and cultural conflicts as well. Pioneers, immigrants, or anyone leaving their known environment for a new and unknown area often took pieces of their culture with them to their new homes. The transition between the old and new ways was not always a smooth one but often worthwhile. For although a new environment might necessitate the adaptation of previous customs, the successful carryover of the old into the new added continuity to the settler's lives. This is true of individuals and it is true of government agencies as well. It seems especially true of the U.S. Lighthouse Establishment.

To confine the research for this examination and allow an in-depth look at station life, only four Oregon Coast lighthouses were chosen for study. Individually,

these stations retain bits and pieces of family life and occupational demands implied or inferred in the buildings and the narratives that survive. Together, the stations and the stories fill in some of the historical gaps remaining in the written records. Each contributes new ideas about what efforts were taken to light the Oregon Coast and settle a new region.

Constructed within one-hundred-and-seventy miles of each other, these lighthouses represent the shades of contested space under discussion here. At the northern most point lies Tillamook Rock Lighthouse. Not generally considered a part of the central Oregon Coast, the Tillamook Rock Lighthouse is included in this study because its unique location seems to round out the discussion of lighthouses and contested space. Established on a basaltic outcrop approximately one-mile offshore, The Rock was by far the loneliest and most dangerous appointment along the Oregon Coast. In "Terrible Tilly," as the light became known, the physical aspects of contested space are illustrated through the might of mankind and nature in fierce combat. This battle between human engineering and the might of an angry sea continued throughout the light's service.

Approximately one-hundred-and-twenty miles south of "Tilly" lies Yaquina Head. Constructed on an exposed headland jutting into the Pacific Ocean, the light's origin was as shrouded in controversy as its history remains today. The narratives that survive and the questions that remain defy the determined researcher's best efforts to prove the logistics of the original light. In a lesser way, the unprotected position of the lighthouse ties into the physical demands faced by the Tillamook keepers. The exposed position of the headland places the station in the path of

heavy winds. The jagged shoreline surrounding three sides of the basaltic headland also made landing a lighter difficult. These factors combine to illustrate the challenge of tending a light in an environment less dangerous than Tillamook but nonetheless still physically contested.

Three-and-a-half miles south of Yaquina Head is the Yaquina Bay Lighthouse situated at the mouth of the Yaquina River. Unlike the two coastal lights mentioned above, the smaller bay lighthouse was designed as a harbor light to mark the entrance into Yaquina Bay. Settled within the growing community of Newport, the lightkeeper and his family did not face the social isolation the keepers experienced on Tilly or even the station on the headland. Within the history of the Bay Lighthouse the other half of the Yaquina Head political tug-of-war is defined. The domestic levels of contested space are also explored as the lighthouse is analyzed through the remaining vernacular architecture of the lighthouse museum.

The final station in this study lies another forty-seven miles south of Newport. Situated on a grassy-ledge and backed by tall, gentle hills, the Heceta Head Lighthouse remained isolated from any nearby communities during the station's early years. Here the nuances of socially contested space are investigated through the lens of the lighthouse families and the narratives that live on about the personalities of the keepers.

Together these four stations paint a vivid picture of what life was like at an Oregon lighthouse, the challenge of living near the sea, as well as the determinations of the keepers and their families to maintain their cultural connections while tending the beacon. Each light in and of itself displays not only the intentions of the

government office charged with the responsibility of lighting the nation's coastline, but also the power of that governing body to transmit the culture and mores prevalent at the time to new areas of settlement as they were opened within the expanding borders of the maritime frontier.

To help readers visualize each of the lighthouses, I have included several floor plans within this text. These plans are not in any way intended to represent professional architectural plans since they are not drawn to scale, although I did try to keep the ratio of room sizes consistent with the information I had. Further, they do not necessarily follow current architectural protocols. The designs are supplied simply for visual orientation, insight into spatial environments, and ease of discussion.

Included in the main body of the thesis is a brief history of the lighthouse, how it developed and how humans viewed their physical world. There is also a chapter outlining the decades leading up to the settlement of the Pacific Northwest and the changes in the U. S. Lighthouse Board. Both of these chapters lay the groundwork for the later discussion of the each station and the nature of contested space along the central Oregon Coast.

The breadth of information necessary to interpret the landscape and the lives of the keepers continued to grow throughout the research process. Although there were times when the endeavor to unearth the whys, hows, whats, and whens seemed to be getting out of control, I always returned to the lighthouses themselves for clarity. They were the focus of my study and the reason for every new exploration. Within the unifying framework of the individual stations themselves, all

the material started to come together. As I walked around the lighthouses, the combined insights gained from all the newspapers, files, photographs, and histories started to gel. By the end of the summer I had drawn conclusions that did not stem from any one portion of my research but instead developed from the interlocking of the many bits of information I found among the station records and my stack of field notes. The following chapters are the synthesis of what I learned.

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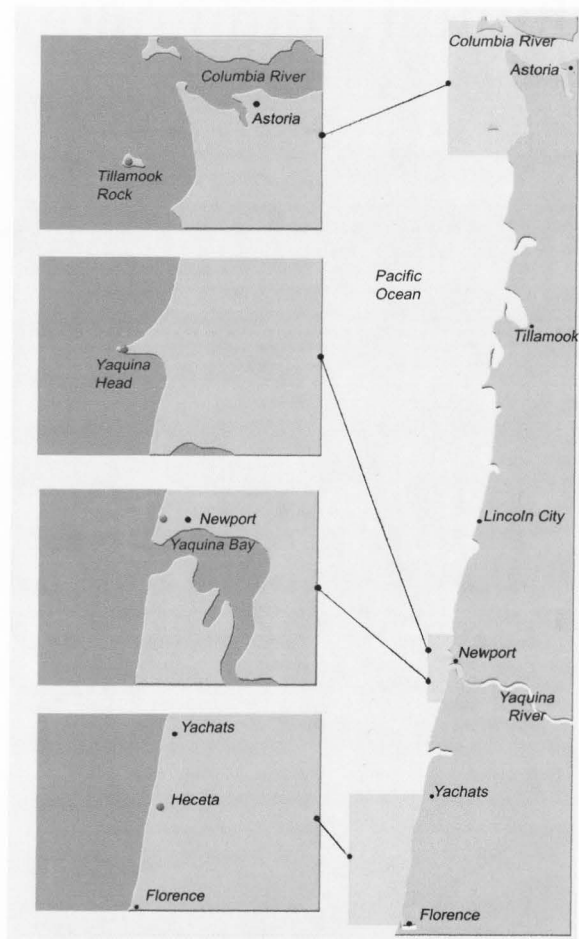


Figure 1. A map of the central Oregon Coast showing the placement of the lighthouses in this discussion. The boxes on the left are enlargements of the coastline on the right. Map drawn by Joshua Alan Terry, 2002.

CHAPTER I

INTRODUCTION: CONFRONTING NATURE

Before advancing technologies brought forth radio beacons and global satellite positioning, there were lighthouses. Though simple in principle, the fires that divided the night were humanity's response to one of their most powerful antagonists: the sea. Lighthouses, therefore, became the first-line of defense in humanity's war against the water. The beacons became a tool in the mariner's battle for safety. These mighty watchtowers of a bygone era sent out the following warning: there is danger here; be cautious. Using the lighthouse to navigate, the mariner increased his chances for survival. By avoiding the threat marked by such sentinels, the mighty vessels that plied the world's oceans could negotiate a proper sea lane and increase their chances of reaching a safe port. The lighthouse was a preemptive move in humanities battle with the sea.

The earliest known lighthouse dates back to the Pharos of Alexandria around 300 B. C. E. A towering monolith of stone, the Pharos was capped with a fire that sent flames and smoke high into the night. Peter Williams in his history of the lighthouse estimated that the square base of the Pharos was 100 feet across. The height of the main tower reached 400 feet with a smaller round tower extending even higher (Williams 2002, 10-12). The lighthouse took twenty years to build. Although the Pharos reaches back into antiquity, construction of such a light may not have been the first of its kind.

D. Alan Stevenson, descendent of the "Lighthouse Stevensons" who built many of Scotland's most impressive lighthouses, analyzes the possibility that the

mighty Pharos was based on still earlier beacons in his classic work, *The World's*

Lighthouses from Ancient Times to 1820.

It seems unlikely that the construction of a lighthouse of such tremendous proportions and maintenance of its great fire would have been contemplated had not lighthouses already proved of value to ships, and persistent penetration into the mists of Antiquity may yet reveal earlier instances of navigation lights. (Stevenson 2002, 5)

Stevenson's assumption is likely correct. Had lighthouses not been an earlier aid to mariners, the implementation of such an undertaking of stone, height, and expense would have been unprecedented and risky. The financial investment alone was staggering. Lighthouse photographer, Dudley Whitney, in his beautiful book, *The Lighthouse*, places the cost of the Pharos at 800 talents "a sum which according to the calculation of one English historian in the late nineteenth century, would work out to \$2,500,000 in today's currency" (Whitney 1989, 13-14). Such a great sum was unlikely to have been invested in a novelty. There must have been some precursor for the extraordinary light, some model in the history of a seafaring nation that acted as a prototype for the Pharos, a building so magnificent it was considered one of the seven wonders of the ancient world.

W. H. Davenport Adams when writing his book, *Lighthouses and Lightships: A Descriptive and Historical Account of Their Mode of Construction and Organization*, over a century ago, proposed that there are still earlier indications of working sentinels beyond that of the Pharos. In his discussion of lighthouse history, he states:

[T]here seems some reason to believe that, long before Greece became a maritime nation, light-towers had been built by the Lybians and the Cuthites along the coast-line of lower Egypt.... Their purpose was a holy one, and accordingly they were also used as temples, and each was dedicated to a divinity.... It had been conjectured by some authorities that their walls at first were painted with charts of the Mediterranean coast and of the navigation of

the Nile[,] these charts being afterwards transferred to papyrus. The priests of these singular but valuable institutions taught the sciences of hydrography and pilotage, and the art of steering a vessel's course by the aid of the constellations. (Adams 1870, 10)

If celestial navigation and the study of water were distinct sciences well-known to ancient priests, then Adams' supposition implies the possibility that pharology, the study of lighthouses, also existed. If this is true, the Pharos was indeed not the first of its kind.

The precise age when humans first began building elevated fires to light the sky, or how the idea for a lighthouse originated, remains unknown. There is some speculation by Stevenson that the ancient sailors got the idea from nature (Stevenson 2002, 5). Having used the volcanoes surrounding their ports of call to navigate position, constructing their own flaming beacons would be only one step further.

These early attempts to light the shoreline could not escape the basic issue of contested space, namely that of human against human. What the home-bound mariners used to contend against the sea's might, a warrior could exploit for conquest. The early sentinels then were often used only in times of peace. Throughout U. S. history, the country's lighthouses were often been faced with attack from invaders and wartime destruction. Occasionally the nation's lights were dimmed or darkened to keep the shoreline safe from enemy ships.

If lighthouses were established regardless of the military risks, not all of them could withstand the demands thrown at them by the sea. During times of peace, other dangers faced the sentinels. Many of the ancient and medieval lights were built with stone although not all lighthouses were as fortunate, some were built

with wood. If constructed on the mainland, the chances of the wooden lighthouse safely weathering a hurricane increased. However, during the seventeenth and eighteenth centuries when colonization opened the world and commercial maritime trade amplified, the need for offshore lighthouses expanded faster than the building materials or engineering methods of the day could support. These early lights, when not crafted in stone, were like their mainland counterparts assembled in wood and iron. Although their construction was a daring endeavor, it did not always end well. The Eddystone Lighthouse fourteen miles off the coast of Plymouth, England, is a good example.

An audacious attempt to warn sailors away from the Eddystone Rocks, the first Eddystone lighthouse was an engineering challenge few people were willing to meet. Finally, in 1696, Henry Winstanley stepped forward with a design. Supremely confident in the stability and efficacy of his lighthouse, Winstanley boasted a desire to be within the light during the greatest storm the sea could throw against the tower. He got his wish. The hurricane that attacked the English coastline with such ferocity on 26 November 1703 is to this day remembered as The Great Storm. The Eddystone Lighthouse disappeared in the night. Winstanley, the work crew, and the keepers trapped in the tower during the murderous typhoon were killed.

Sailors of old would have said Winstanley sealed his fate with his own bravado. The sea, it would seem, does not take kindly to those who mock her power. In his book about nautical folklore, academic, folklorist, and sailor, Horace Beck recounts the complex beliefs of sailors towards the sea and, in some small way, the early view of humans toward their physical world:

First, the sea is regarded animistically. The real seafaring man genuinely loves the sea. He believes in a kind of spiritual purity in the "being" Sea. For this reason. . . he fears to travel with a murderer, a man with unpaid bills, a thief or anyone who does not have, or seem to have, a kind of moral integrity. The sea does not want such people trammeling up her placid bosom and could cut out some good flesh at the same time it takes the proud. (Beck 1999, 300)

The animistic perception mentioned here places the sea on the level of either active benefactor or angry antagonist, and while not moral per se, the sea is nonetheless particular about who crosses her expanse. The braggart, Beck continues, is not one of her favorites (Beck 1999, 302). By the ancient mariner's standards, Winstanley paid for taunting and tempting the sea by placing himself in her power. Older such beliefs prevailed for centuries. This perception of the sea as an entity with a personified will was challenged only after humans left the idea of a deified world for a world of order and logic.

One of the underlying premises of this thesis is that as the Age of Reason reshaped the way people viewed their relationship to the physical world, humans became more confident in their ability to change the balance of power between themselves and nature. Whereas for centuries the human race could only hope to survive the vagaries of life at sea, as the Enlightenment period advanced, humans began to take steps to override the dangers faced by mariners. New ways of viewing the physical world created new responses to the problems the natural world presented. An example of this determination can be seen in the light's designed by separate cultures to break the darkness.

The concept of society in contest with nature is not a new one, but the perception that the lighthouse stands at the boundary of such a contest seems to

be. Humans cannot still the storms or calm the seas. Nor can they neutralize the underwater shoals, landslides, and earthquakes that reshape the coastline and threaten the mariner. Humans can, however, unmask the danger by sending abroad an advance warning of what lies hidden in the dark. In this way, the lighthouse functions as an instrument in overriding the unchecked power of nature. To the countless ships that have reached safety by navigating off a lighted point, the ocean lost the battle. For all the ships that foundered at nature's hand, the forces of wind and water claimed the victory and the lighthouse as well as the sailors who used them were vanquished.

In this contest between humans and their environment, nature is not without defenses its own. The ocean is a vast and changeable entity. With an average depth of 2.3 miles and a peak depth of 6.8 miles (Museum of Science 1998), the sea is a force to be reckoned with and an entity to navigate with caution and skill. Rarely alone in its machinations, the ocean interacts with the air to create constant change. For many centuries sailors have been referred to as a conservative group, somewhat fatalistic in their perspective of life, death, and the sea. The motivation behind such fatalism is due in part to their recognition of what it takes to survive a life lived on such a vast and deep body of water as the world's oceans.

The mariners who spent their days and years surrounded by ocean seemed to understand that a ship sails across the sea as a mere speck on an encompassing expanse of moving sea, an expanse that can, without warning, strike and destroy whatever, or whoever, rests upon it. This is the eternal battle between civilization and the ocean that produced the lighthouse, and although the creation of warning

lights did not end the struggle, the beacons were an attempt to balance the power of the sea with the resourcefulness of humanity. Still, even with the lighthouse standing watch, the battle for a piece of rock continued as the ocean persisted in its unrelenting movement. For in spite of the fact that humanity may declare a piece of ground as its own, nature does not reduce its efforts to reclaim the territory marked with the stamp of human sagacity.

Waves wage an unrelenting force against the coastline. Again and again breakers crash against the rocks. Tides ebb and flow twice a day. Storms appear and disappear. Rip tides suddenly and dangerously pull water to sea. To this extent, a shoreline is never still. Ocean-going cultures, then, cannot rest their vigil when trying to counterbalance nature's effect. They can only change their strategies through developments in technology, innovative lighthouse design, and placement of the highly focused beacons.

While it is certainly true that bad decisions by owners, captains, and crews have contributed to the loss of many ships, this study is concerned only with able-bodied crews, experienced captains, seaworthy ships, the lucky beginner, and the immense challenge that remains when everything goes right until nature strikes a blow. The ocean is a constantly changing battlefield. A ship might sail for days with a favorable wind, then suddenly find itself running at the front of a storm. This quixotic quality of both water and air challenges humanity to find the means of holding its foes in check. Near the shoreline society built the lighthouse to warn of, subdue, or neutralize the dangers of a changeable sea. However, once the tower was in place, the battlefield often changed.

The constant reshaping of the land caused by oceanic activity, both above and below the water's surface, required that each lighthouse be built specifically to the needs of the mariner and the demands of the immediate environment. Height of the tower, general weather patterns, purpose for the light, and bureaucratic intentions combined to determine what kind of lighthouse was needed and where it would be located. Bad decisions brought about bad lights. Bad lights increased the loss of ships and lives. Lighthouse construction required a combination of boldness and resolution when designing a tower capable of standing firm against the sea's tenacious breakers. Almost as important as the strength of the tower, was the dedication of the keepers. A tower held the lantern, but a keeper tended the fire.

The diversity of sentinels throughout the country combined with the large number of keepers required to maintain the stations took skill and discipline to manage effectively. In order to direct the many and varied lighthouses of the United States, the nation's waters were divided into districts. Each district was overseen by a superintendent responsible for the territory. To assist the superintendents in monitoring the quality of the nation's beacons, several lighthouse inspectors made quarterly visits to the sentinels. The inspectors reviewed not only the workings and quality of the lighthouse itself but expanded their examinations to include the rest of the reserve, namely the private areas of the keeper's quarters. The Lighthouse Board believed that the personal habits of the keeper and his or her family directly affected the quality of the keeper's watch. To this end, the living quarters were required to pass a surprise white-glove inspection. When one remembers that these locations were often wind-swept, sandy environs, the women's efforts to maintain

immaculate homes must have been endless and occasionally trying. Within this exacting requirement are layers of contested space surrounding the domestic parameters of the keepers' homes, some of which will be studied throughout this thesis.

An important distinction lies at the core of light-tending. Although the early lighthouse families homesteaded as a matter of survival and lifestyle, they were not *homesteaders* per se. The property never belonged to a keeper. He or she was responsible for seeing that everything remained in good working order, but lighthouse personnel acted as caretakers, not owners. Keepers did not move their families to the lights to establish permanent homes. Consequently, families transferring to a station often stepped into houses that were already built, with gardens that were already plowed, and outbuildings that were already established. Light-tending was first and foremost an occupation. The keepers' personal lives were secondary considerations.

Although lighthouses and lighthouse living are often imbued with charm, tenaciousness, and nobility, in reality the beacons were manned by ordinary people living commonplace lives. This is not to say that there were not advantages to having a steady job with the U. S. Lighthouse Establishment, but rather that it was not a romantic, glamorous adventure. While there are stories of great daring and rescue, those grand events of life and death are rarely reflected in the patterns of daily living involved in running the station.

On a customary basis, the lives of the keepers and their families were much calmer than romantic sensibilities depict. Boredom and hard work were common

events. There was a great deal of monotony involved in tending a lighthouse.

Unfortunately for those interested in remembering the accomplishments of the men and women who kept the lanterns burning along the Oregon Coast, first-hand accounts of the commonplace tasks so essential to the lighthouse families in meeting their needs has been lost to time. In some ways, this daily routine is the more important aspect of their character. Daring deeds may be accomplished in a minute, but the fortitude, creativity, and determination to rear a family in a contested environment is the essence of integrity. In many ways the intention behind this exploration is a desire to uncover some of the missing pieces of the lighthouse families' lives.

The careful study of four Oregon lighthouses provides a micro exploration of contested space on a national, regional and local basis as it applies to the beacons of an earlier age in terms of cultural, occupational, and social expectations. These insights can, to some degree, then be applied to lighthouses throughout the country and offer a deeper understanding of the men and women who served as keepers. Since lighthouses followed the settlement of an area, the reasons for building and maintaining a light station became representative of the needs, hopes, and desires of those who were building nearby communities.

Each lighthouse discussed in the analysis adds a new dimension to a larger understanding of the developing Pacific Northwest, insight into the occupational challenges of the U. S. Lighthouse Establishment, and some indication of what it took to turn a new territory into a settled community. More importantly, the inquiry into contested space shows the accomplishments attainable when human ingenuity is

tested and determined to succeed. The histories of these stations also illustrate an overall model of consistency and constancy in the lives of the keepers and their families. The buildings they lived in, the regulations that governed their lives, and the environments that shaped their daily activities all come together to express a particular time and place in the development and settlement of the central Oregon Coast.

There are three primary areas of contention under discussion here. First is the battle between humans and nature as described above, where the power of the sea is pitted against the acumen and determination of a smaller and weaker opponent such as humanity. Although the depth of this relationship is only briefly addressed in this discussion, the very fact that a lighthouse was constructed at a particular location indicates an existing danger and the human attempt to reduce the threat to shipping.

Second, the battle of human against human is illustrated through the power structures of money and authority, a conflict most clearly defined by those who determined where the lights were located and how long they remained active. In the case of the lighthouses under investigation here, the battle passed through the hands of congressional representatives to end in the control of the Lighthouse Board.

Finally, this examination reviews the opposition humans faced whenever they started to create communities in an unsettled territory. Within the development of the lighthouse reservations lies the exertion of the lighthouse families who labored to create cultural continuity and quality of life in circumstances of isolation or deprivation. Although the families assigned to the mainland

lighthouses benefited from the homesteads provided by the U. S. Lighthouse Establishment, those keepers tending the offshore station were dependent on the supplies brought in by the lighthouse tenders. Any disruption in the routine of these transport vessels disturbed the lives of the remote keepers and put them at risk.

Although readers may wish to know more specifics about the lanterns and the designs of the towers, this thesis is not a study of the beacons themselves, their technical specifications, or the complexity of their lighting apparatus. Instead, the investigation looks into the roles the sentinels and the keepers played in the battle for contested space as well as the multiple layers of contested space inherent in an environment not yet cultivated for domestic occupation or one which stands in opposition to the human will.

With the increased interest in lighthouses over the last several years, the impact that the Oregon stations had on local community identity is becoming more important. As the country moves further away from its collective memory of the nation's early dependence on water, and its maritime history in general, the awareness of how lighthouses once protected the shoreline may become lost if not written down and studied. The remaining lighthouse museums and interpretive centers will soon be the only link to the maritime settlement of the Pacific Northwest. The lighthouses studied here, though sometimes isolated from the surrounding townships during their early years, have nonetheless become a part of what it meant to settle the Oregon Coast. The people who lived and worked at these stations had the dual role of servant and settler. In this respect, the lighthouse

families represent a unique presence during the years of commercial progress and expansion.

The goal of this thesis is to present an aspect of regional identity and contested space that may not have been previously considered. This view provides an increased understanding not only of a singular period of settlement when the great sailing ships of a maritime culture plied the central Oregon Coast, but also the determination necessary to sustain a family in a backdrop not always friendly to the human will.

CHAPTER II

LIGHTING A COUNTY IN MOTION

In the previous chapter the brush of composition was wielded with a wide sweep to review the history of millennia. Within the pages of the current chapter, a more limited chronicle of the nineteenth century is discussed to remind readers of the transitions that took place throughout the United States when the nation settled the continental borders of the West. Also included herein is a somewhat curbed survey of the relationship between nature and society as it relates to the great sailing ships of the past.

In the last one hundred and fifty years, the United States, as a nation, as a people, as a collective consciousness, has forgotten its dependency on the sailing vessels that plied the world's oceans for centuries. With holds filled to capacity, these magnificent wind-riders carried people and goods over tremendous distances. They were the semi-trucks and transport vessels of their day. Sailing from port to port, the windjammers of the 1800s changed the face of the country.

By the early 1850s the boundaries of the United States had been expanding both overland and upon the waters for many years. Arriving immigrants might well land on the eastern shores of a new country only to realize that their dreams pushed them further west. Established citizens of a still young nation were also restless for something new or better and continued to push the incorporated borders outward.

Roger Morris in his book, *Pacific Sail: Four Centuries of Western Ships in the Pacific*, provides some perspective on the frequency with which people traveled the sea:

The gold rush boosted the population of California from its initial 15,000 to hundreds of thousands. Between 1848 and 1851 inclusive, 412,942 people arrived by sea from the East, either round the Horn or across the Isthmus [of Panama]. (Morris 1987, 148)

Earlier in his book Morris says that, "In spite of its hazards, the sea route was certainly safer than the wagon train overland, and healthier than the fever-blighted route by way of Panama" (Morris 1987, 147). Each year thousands of people booked passage and migrated west by way of the sea.

Unfortunately for the thousands sailing the domestic waters of the spreading republic, by 1850 the lighthouses of the United States had fallen into disrepair and were far behind the lights of other countries. The lighting apparatus in many of the stations had become inadequate. Too many beacons had been concentrated in areas already sufficiently lighted while ineffective illumination existed in others. Lighthouse keepers were inconsistently trained and rarely monitored. The lights often failed to aid the very ships they were created to help.

In response to complaints from businessmen and captains, Congress twice created an investigative board to scrutinize the country's navigational aids, once in 1838 and again in 1851. No major policy changes resulted from the first investigation. However, the second report, as former Coast Guardsman and historian Dennis Noble discusses in his book, *Lighthouse & keepers: The U. S. Lighthouse Service and Its Legacy*, induced Congress to make sweeping changes in the governance of the

nation's maritime aids (Noble 1997, 10-11). Congress created the Lighthouse Board on 9 October 1852 (Nobel 1997, 1).

The list of officers comprising the new governing body was quite impressive. Retired historian, F. Ross Holland, Jr., in his book, *America's Lighthouses: An Illustrated History*, enumerates the distinguished members of the lighthouse committee:

Commodore William B. Shubrick and Commander S. F. DuPont were the naval members; Brig. Gen. Joseph G. Totten represented the Corps of Topographical Engineers and Lt. Col. James Kearney the army engineers; A. D. Bache, superintendent of the Coast Survey, and Joseph Henry, first secretary of the Smithsonian and one of the country's leading physicists, were the civilian scientist members; Lt. Thornton A. Jenkins was the naval secretary; and Capt. E. L. F. Hardcastle was the engineering secretary. The Secretary of the Treasury was the ex-facto president. Shubrick was the chairman. (Holland 1988, 35)

This collection of professionals was a far cry from the Treasury Department's Fifth Auditor, Stephen Pleasanton, and his bookkeeping assistants who had previously managed the country's nautical aids. No longer left in the hands of accountants, the U. S. lights were placed under the watchful eyes of marine officers and scientists familiar with the dangers and needs of oceanic travel. Table 1 shown below briefly outlines a few of the more dramatic modifications in policy adopted by the governing board. The implementation of these new procedures shows the significant reorganization in lighthouse management that occurred with the change in administration and how serious the congressional investment was in upgrading the nation's aids to navigation. The Lighthouse Board supervised the nation's maritime needs for fifty-eight years.

In 1903, change again impacted the country's maritime provinces as the

Table 1. Outline of major policy changes with the creation of the Lighthouse Board.

Years	Pleasanton 1820-1852	Lighthouse Board 1852-1910
Operating Board	An accountant with clerics to help him run the department	Comprised of naval officers, scientists, and engineers
Leanings	Economic	Good lights and economy
Supervision	Local superintendents were hired without necessary qualifications; they chose site for lighthouses and investigated complaints	District Inspectors were chosen from a list of naval officers
Rate of Inspection	Annual	Stations were inspected every 3 months
Expectations for Keepers		Set standards for maintaining the lights and checked
Goals	Unknown	Corrected inefficiencies at pre-existing lighthouses
Support for Shipping	Tried to put out a list once or twice	Issued a Light List describing type & location of navigational aids around the country
Organization		Set up a central depot for ordering and distributing supplies
Jobs	Keepers were political appointees	Hired through application
Point of View	Considered the Fresnel lens too expensive to install at all the stations	Installed the Fresnel lens in preexisting lights and in the newly established lighthouses

responsibility for the management of the nation's navigational aids shifted from the Treasury Department to the Department of Commerce (Noble 1997, 31). Seven years later, the U. S. Lighthouse Establishment (U. S. L. H. E.) was again reorganized yet again. The restructure of 1910 saw the replacement of the Lighthouse Board with the Lighthouse Bureau. The Bureau continued along the same administrative lines as the previous board, demanding efficiency from the keepers and quality from the lights. Nonetheless, despite the changes implemented by the Lighthouse Bureau, these

amendments in policy were not the major leaps in procedure addressed during the previous transition from the Pleasanton administration to the Lighthouse Board. So, although the Lighthouse Bureau came into authority just shortly after the Heceta Head Lighthouse was constructed, there was little appreciable difference in political configuration and the nature of contested space as it is studied here. Because of this, the change in administration is not discussed during this examination.

History is often kind to Stephen Pleasanton's memory. Without any nautical credentials of his own, he depended upon, and trusted, the advice of others, however biased they may have been. This limitation alone would have caused him problems, but his skills as an accountant all too often took precedence over the safety of the country's maritime travelers. He is typically labeled a good man placed in a difficult position. Under Pleasanton's supervision the country's navigational beacons burgeoned. F. Ross Holland's history lists an astonishing increase in the nation's nautical aids: 70 lighthouses in 1822 magnified into 331 lighthouses and 42 lightships thirty years later. According to Holland, despite the extensive increase in the number of lighthouses throughout the country, Pleasanton did not see the need to change his administrative methods (Holland 1988, 32). When the scope of the enterprise is duly considered, Pleasanton ran an economic operation, if not always an efficient one. This was unfortunate for anyone traveling across the waters of the U. S.

Many changes in lantern technology occurred during Pleasanton's time in office. The most important being the Fresnel lens. Invented by Augustin-Jean Fresnel (pronounced Fray-nel) in 1820, the Fresnel lens became the first stable light-

producing lens in the evolution of lighting apparatus. The craftsmanship of the lens provided a bright, stable, and consistent light for the beacons. Stephen Pleasanton, after witnessing a demonstration of the revolutionary lantern, acknowledged that it had potential but for some reason lost interest in the lens. Only two major lighthouses received the Fresnel lens during his tenure. Nothing in the research process gave a reason for Pleasanton's reluctance to install the new lighting apparatus in the sentinels. His hesitation may have stemmed from his accounting background and an unwillingness to spend so much money. However, his previous business ties, and his trust in these well-known suppliers, may have also been a factor. By way of contrast, the Lighthouse Board, with congressional support, immediately set about investing money in the Fresnel lens, upgrading the most vital lighthouses immediately.

The cost of the lantern was representative of its value. Each piece was crafted to fit precisely into the aggregate. The edge and angle of the prisms determined how finely the light was refocused and distributed. Any scratch, break, or crack in the glass required immediate attention or the quality of the lantern was diminished. When the Lighthouse Board modernized the U. S. beacons with the magnificent Fresnel lens, Congress made an enormous economic investment in the safety of the mariners plying the domestic waters of the nation.

Table 2 shown below describes the Fresnel lens system. The miles of visibility listed are for reader perspective only. The actual distance a light can be seen at sea fluctuates. A First Order light (see figure 2), in good weather and standing at a reasonable height, could be seen nineteen to twenty-one nautical miles from land.

Table 2. A list of Fresnel Lens "orders" and attributes. (Table adapted from Nobel 1997, 24; Shanks and Shanks on <http://www.pigeonpointlighthouse.org/sizecht.htm> 12 Nov 2002)

Original Fresnel Order	Modern Lens Orders	Use	Height in feet	Diameter in feet	Weight in Lbs. after Installation	Approx. Visibility (Miles)
1	1 st	Largest Seacoast Lights	7.5	6.1	12,000	19 – 21
2	2 nd	Great Lakes Lighthouses, Seacoasts, Islands, Sounds	6.1	4.7	3,530	19 – 20
3 Small	3 rd	Seacoast, Sounds, River Entry, Bays, Channels, Range Lights	4.8	3.3	1,985	
3 Large	4 th	Shoals, Reefs, Harbor Lights, Island in Rivers and Harbors	2.4	2.5 ½	440-660	14
4 Small	5 th	Breakwaters, River Lights, Channels, Small Islands in Sounds	1.8	1.3	265-440	11
4 Large	6 th	Pier or Breakwater, Lights in Harbors.	1.5	1.0	220	

This gave a ship and crew twenty miles to come about when making a course correction. A Fifth Order Lens had a visibility of only eleven nautical miles. Hence, the lens and the lighthouse were individually crafted for the waters they marked. The difference between the orders becomes more imperative in the later discussion of the Yaquina Bay and Yaquina Head Lighthouses when contested space takes the form of political structure and power. For more information about lighthouse characteristics and the nature of viewing light on the water see Appendix A.

(A)



(B)



(C)

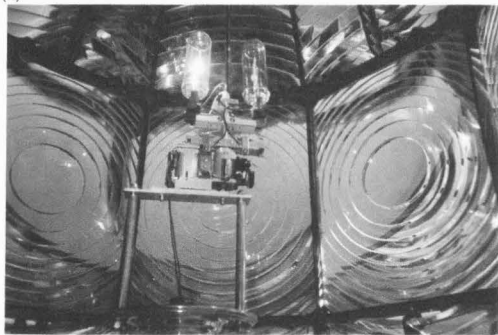


Figure 2. A First Order Fresnel Lens. The second light bulb is the backup that automatically comes on when the first bulb burns out. The round centers seen in the lens are known as bulls-eyes. (A) Side view of the Yaquina Head lens. (B) Heceta Head, looking through the prisms from the outside of the lens; notice that the prism turns reflections upside down. (C) Heceta Head, looking through the prisms from the inside of the lens.

To understand the importance of having the right lens order in the lighthouse a familiarity with the principles behind sailing ships is necessary. The natural laws governing the atmosphere and the hydrosphere are fundamental to the interplay between lighthouses and ships. Jan Adkins, writer, sailor, and fisherman, explains in his introductory book on ship-handling that the premise of a sailing vessel is that of ship and nature working together. Dependent on the wind to fill the sails and provide movement, a ship had to work with the wind to set a course (Adkins 1973, 32-35). Unlike an automobile that can simply turn left when the wheel is moved in the same direction, a ship must be brought about either by tacking or gybing depending on the position of the wind fore or aft.

If at any time, the sails luff (drop the wind), the ship loses its propelling power and glides helplessly through the water (an undesired event when a crew is seeking to avoid death). Wind velocity determines the amount and type of sail requisite for maneuvering a ship. Any change in direction then required a combination of gybing (if the ship was running before the wind); luffing (if the boom had to be brought across the ship); reefing (if sail area needed to be shortened); furling (if sail area needed increasing); or tacking (if the ship was headed into the wind). None of these manipulations could be done quickly on ships with large and varied sails. The hulking wind-jammers needed time and space (sometimes up to twenty miles) to perform the complex sequence of maneuvers required when changing the rigging. As Morris says, "Many ships have been lost through missing stays when sea room was scant" (Morris 1987, 124).

The distance and room required to evade danger depended on several factors: weather, amount of sail, and sea. Confronting these contingencies was the strength of the lighthouse lens. The complexity involved in the manipulation of many sails clarifies the role of the lantern and the lighthouse in the battle for contested space they tried to obviate. A clear, strong beam was needed to pierce the night for many miles. A lantern too small to reach beyond the danger it sought to mark did not leave mariners with enough physical space to avoid danger. In plain language, a warning light that came too late was no warning at all. A region in need of a lighthouse also needed a governing body willing to light the coast effectively.

With the acquisition of the Pacific Northwest in the 1840s, the obligation to light the new seaboard came to the foreground. Unfortunately for shipping, Pleasanton was not interested in lighting the country's western shore. According to Holland's account in his photographic history, *Lighthouses*, the Fifth Auditor wanted to draw the line at the North Pacific:

Interestingly, Pleasanton wanted nothing to do with the West Coast. He wrote to the secretary of the treasury that he had more work than he could handle with the existing lighthouses and asked that the West Coast duties be assigned to someone else. (Holland 1997, 53)

In all fairness to Pleasanton, he had a point. Earlier in that same chapter, Holland discusses the scope of the Fifth Auditor's work:

The aids to navigation function was but one of Pleasanton's jobs. He was one of the nation's principal bookkeepers, responsible for all accounts relating to the Department of State and the Patent Office, the census, boundary commissioners, and claims on foreign governments. He also kept track of diplomatic, consular, and bankers' accounts overseas. To help him with all these responsibilities, Pleasanton had nine clerks, four of whom were designated to handle lighthouse matters. (Holland 1997, 52)

Pleasanton was a busy man. Holland also alludes to the possibility that Pleasant knew the end of his tenure was near. The Lighthouse Board was only a few years away.

This auspice introduction into lighting the Pacific Northwest indicates that contested space has been a part of the West Coast's history since the moment of acquisition. Despite the Lighthouse Board's more proactive approach to lighting the Californian, Washington, and Oregon coastline than Pleasanton, even they minimized the dangers so much a part of the north Pacific. In fact, it seems that underestimating the West Coast was a common malady. The U. S. Life-Saving Service, forerunner of the U. S. Coast Guard, also held a misconception of danger. Ralph Shanks et al in, *The U.S. Life Saving Service, Heroes, Rescues and Architecture of the Early Coast Guard*, discusses the early perception of the West Coast:

The Life-Saving Service had difficulty understanding the Pacific Coast. Sumner Kimball once wrote, "The Pacific coast is not a dangerous one. . .the climate is remarkably bland and shipwrecks are of rare occurrence.... The weather, therefore, is easily forecast, and navigation can not [sic] in general be regarded as hazardous." Kimball granted, "There are, however, a few extremely dangerous points, mostly situated at the entrances to the important ports." He was right about his last statements; there were some "extremely dangerous points" but there was far more danger than he initially recognized. (Shanks, York, and Shanks 1996, 187)

The authors' own observations about the problematic reality of the West Coast are more enlightened:

The West Coast had few harbors of refuge, providing mariners with [fewer] options for safety and forcing them to make long runs for shelter. While storms were less common than on the Atlantic Coast and the Great Lakes, the waves were bigger and the storms, when they did occur, often lasted longer. Fog was a danger during many months of the year and Lighthouse Service records showed that northern California was one of the two foggiest locations in the country. (Shanks, York, and Shanks 1996, 187)

Even the 1881 *Coast Pilot* warned sailors about the chancy weather patterns of the Pacific Northwest:

From San Francisco northward to the strait of Juan de Fuca, the north-westerly are still the prevailing winds; in the months of June, September, and October, we found them almost constantly so; hard gales from all points of the compass, however, may be looked for here at all seasons, especially, during the winter, and the equinoctial months. These begin generally from S. E. to S. W., bringing thick rainy weather with them. After blowing from these quarters for some hours, they fly round to the northward (by the west), with little if any warning, except the increased heaviness of the rain, and blow even harder than before. (Imray 1881, 409-410)

The warning issued in the *Coast Pilot* seem to indicate that although the Lighthouse Board and the Life-saving Service may not have believed that any danger existed in the north Pacific, the sailors who traveled the Oregon territory knew otherwise. See Appendix B for a further discussion of the U. S. L. H. E.'s reluctance to get involved with the West Coast.

By the 1850s, knowledge of the Northwest coastline was expanding but limited in terms of particular geological features, weather fronts, and harbors. The dramatic and irregular nature of the young coastline differed from the more familiar and older eastern shore. In geologic terms, the East Coast is a passive margin. Time and erosion have straightened the shoreline. Safe harbors are more abundant all along the seaboard, and the edge of the continental shelf sits further out to sea. The West Coast is a striking contrast. As an active margin, geologic changes occur frequently as tectonic plates collide and subduct. In consequence of this underwater movement, the shoreline remains jagged since deposition and erosion processes have not had the time to smooth the uneven nature of the coastline. Safe harbors and coves are less periodic and harder to find and the continental shelf is closer to

shore. According to LaVerne D. Kulm, in her article discussing the Oregon region, the edge of the continental shelf is only five miles off the beaches near Cape Blanco and a mere twenty-five miles off the Oregon shores further north (Kulm 1977, 10-11). The Oregon Territory also differs from its contiguous neighbor to the south. David H. Grover in his book, *The Unforgiving Coast*, discusses a few of the important differences between California and the Pacific Northwest. The following is a summary of his insights:

- ❑ California has long, flat bluffs running along its coastline; Oregon beaches are often broken by headlands and bays.
- ❑ California has several headlands used as turning points to redirect ships into reliable sea lanes; Oregon's only course correction comes at Cape Blanco.
- ❑ California has several offshore islands; the Oregon shoreline has fewer.
- ❑ Northwest ports are often shallow bars of sand or silt. (Grover 2002, 15-17).

While all of the physical characteristics mentioned here were important to shipping, this last one created the most risk for the wind-guided vessels of the nineteenth century. Since channels could be reshaped by changing sand bars a ship might pass safely through on one trip only to become grounded the next around when an unwary captain sought passage through a sea route transformed by marine action. Because of this transience, jetties were needed to stabilize the entrances to important harbors. Without these jetties, crossing the shallow bars was risky and destructive to unfortunate captains and their crews. These sandbars play a pivotal point in the analysis of contested space as it relates to the Yaquina Bay lighthouse discussed in the next chapter.

The physical properties of the sparsely populated region may not have contained the risks its southern or eastern counterparts demonstrated, but the

danger when it arose was nonetheless great. In the end, it was the people seeking a new life along the seaboard that changed the way the lighthouse administration viewed the Oregon Coast. For, when all is said and done, the lives of the mariners and the fiscal demands of commerce were often the determining factors in whether or not a light was established to mark the shore. The people of Oregon's harbor communities knew how important the sea ports were to their livelihood.

Due to the westward mobility of the 1800s, settlers sought new territory for planting in the western regions of the continental U. S. Businessmen drawn by the commercial promise of supplying a growing nation followed the prospectors and fur traders descending on the West Coast. The gold fields of California, the rivers of the Hudson Bay area, and the lush woods of the Pacific Northwest drew entrepreneur and farmer alike. The nineteenth century was a time of growth and expansion, a time when people left their homes in the east without knowing when, or if, they would see those waving good-bye again.

Because the progress of the westward movement is customarily chronicled through the land-locked mobility of the Prairie Schooner and the pioneers who walked the grasslands of the plains and climbed the Rocky Mountains, the concurrent development of the West Coast as a commercial sea port is often neglected. However, no event takes place in isolation. With the expansion of the country by land came the need for familiarity on the sea. Philip H. Parrish in his introduction to *Willamette Landings: Ghost Towns of the River*, discusses the marine path of emigration:

[T]his is something which we tend to forget, since so much intervenes to obscure our picture of that old migration: [the pioneers] did not fan out across

plains and through forests when they made that crossing. There were no roads. There were no railways. And, coming from the seacoasts and the coastal rivers, they were used to water traffic. So they followed down the reaches of the Ohio and the reaches of the Tennessee and followed up the tributaries of these and other rivers. They settled as close as possible to the banks, and once settled they used the network of rivers and streams for highways. This method of settlement and this way of life were so striking that in the final decades of the Eighteenth century and the first decades of the Nineteenth century, the men of the migration into the interior of the continent were known as the "Men of the Western Waters." (Parrish 1947, introduction)

Prairie Schooners and wagon roads came only after settlement of the waterways.

Only after timber harvesting cleared the forests and roads through the dense woodlands became possible did the buckboards and covered wagons of history break trails overland and wear deep ruts in the soil. Until then, travel along the rivers was the most expedient way to move people and goods. The settlers in turn required a connection to the markets and industries they had left behind. The ships of the nineteenth century stepped in to fulfill this need.

Supporting the new communities of the North Pacific region, clippers and barquentines sailed from the western shore with timber, furs, fish, and agricultural products filling their holds. To the West they brought spices and workmen from China, furniture and equipment from Boston and New York, cotton from the South, and finally people seeking fortunes, homes, and hope. The sailing vessels extended the commercial success of growing business interests and supplied any necessities the West Coast was not yet capable of producing. With their sails taut, the wind-riders shrunk the world through their travels. Yet whenever a ship left port, it faced the possibility of foundering on a hazardous shore.

To lessen the risks of marine travel along the central Oregon Coast, lighthouses were constructed as the need arose and as settlement expanded. These beacons worked in tangent with the people who entered the coast range to establish homes and business near the shoreline. The first of these settlements grew at the mouth of the Yaquina River.

CHAPTER III

LIGHTHOUSE ON THE HILL

Situated atop a sandy bluff, the lonely Yaquina Bay sentinel stood in its inception as a tall, white relief above a base of green and yellow. Surrounded by sand and just a few trees, the lighthouse was a stark outline against a forlorn backdrop. Time has rejected the bareness of the original hillside and filled in the empty spaces with evergreens. Now, the lighthouse that was once so alone at its birth can barely be seen through the surrounding trees. However, come sunset the lantern shines once again to distinguish the harbor entrance and break the uncompromising darkness of the night.

Newport is a small city sitting at the entrance to the Yaquina River. The lighthouse is one of the town's oldest buildings, constructed only a few years after the area was open to Anglo settlement. The story of this forgotten sentinel is one of abandonment and rebirth. Born in controversy, the lighthouse only served the community who fought for the beacon three years before being decommissioned. Politics and power struggles extinguished the harbor light, forsook the building, and left the lonely sentinel to fall into decay. In matters of contested space, this little harbor lantern has faced the battle for recognition many times. Rejected by the U. S. Lighthouse Establishment for its impracticality as a seacoast light, the little sentinel was forgotten by the public it was designed to serve. The beacon faced a date with wrecking balls and demolition teams several times before the light was finally saved by a group of local citizens determined to restore the crumbling building. Their

restoration effort salvaged a part of the community's past and the nation's maritime history.

As migrating pioneers discovered the Oregon Territory, President Pierce on 9 November 1855, issued an executive order creating the Coast Range Indian Reservation effectively closing the coast area to incoming homesteaders. Encompassing approximately 1.4 million acres of prime waterways and abundant timber, the reservation remained intact for only ten years, after which the needs of the Anglo settlers were given priority over the needs of the Native Americans who had for centuries walked, fished, and settled the shores of the Yaquina sector. The native way of life was forever changed by the wishes of the more powerful W. S. government. Native families were removed from their homes and their land reallocated to encroaching outsiders. Anglo towns quickly spread throughout the area.

By 1864, the river communities had been connected to the Willamette Valley by a wagon road "rammed through the forest and reach[ing] from Corvallis to Elk City, which was the head of [the] tidewater" (Wall and Webber 1994, 26). Further, in 1866, the needs of the Willamette Valley businessmen and the commercial benefits of the lucrative oyster beds in the Yaquina Bay had convinced Congress to open a sea port at the mouth of the Yaquina River for the exportation of merchandise and natural resources (Zucker, Hummel and Hogfoss 1983, 112). The Coast Range Indian Reservation was split down the center; the opening of the Yaquina tract was achieved.

Use of the Yaquina River as a transportation and settlement route facilitated the need to get merchandise to market. Travel overland was too slow and

cumbersome to move products by wagon, and the Coast Range was covered in thick forest that required extensive effort to clear. Further, as noted in, *Yaquina Bay 1776-1976*, a railroad connecting the fertile Willamette Valley to the riverways was not completed until 1885 (Castle et al 1978, 30). Access to the harbor was vital for commercial development.

Continued settlement of the Yaquina Bay area created a need to make crossing the dangerous bar far less hazardous. Although the natural environment of the bar did not include large, jagged rocks, the physical restrictions of the harbor were nonetheless contested space to the ships entering the breakwater. The harbor entrance was narrow and shallow. Sand and silt shifted with tidal movement and river deposition. High winds added further danger to ships moving between the bay and the open water of the sea.

In *The Bayfront Book*, Steve Wyatt recognizes the danger that was so much a part of passing through the mouth of the inlet: "There were no jetties or even a tugboat to guide sailboats in or out of the bay. In the 1870s, at least three vessels. . . were destroyed when they ended up aground on South Beach" (Wyatt 1999, 29-30). The city founders knew that something had to be done to make sailing in and out of the bay less hazardous. Commercial shipping needed better access to the young, growing town of Newport if the harbor were to be cultivated as an international port.

Dorothy Wall, in her book, *Yaquina Lighthouses on the Oregon Coast*, mentions the first steamer to navigate the Yaquina Bar:

On March 27, 1869[,] Congress appropriated funds for harbor lights, buoys and two lighthouses. But shipping did not wait for the lighthouse to be built. On

May 30, 1870, the steamer *Shubrick* entered the bay and proved that the area could be used for steamer trade. As a results, lumber mills were built and allied businesses sprang up. (Wall and Webber 1994, 26)

"Shipping" is an unusual word for Wall to use since the steamer *Shubrick* was a U. S. Lighthouse Tender. The arrival of the *Shubrick* implies that the U. S. Lighthouse Establishment was responding to the needs of the community. Commissioned as the first steamer to serve as a tender in the Pacific, the *Shubrick* had been rebuilt and placed back into service only a year earlier. The tender would have returned to Newport several times during the following years as it brought supplies to the Bay Lighthouse as well as building materials for the lighthouse further north. Assigned to the 12th Lighthouse District, the *Shubrick* may have carried U. S. Lighthouse Establishment personnel sent to review the sight chosen for the Yaquina Bay Light Station on its 30 May 1870 voyage.

Current research cannot determine whether all U. S. L. H. E. captains who served the nation's beacons were especially capable of navigating dangerous waters, and could therefore be trusted to bring their ships safely through rough seas, or if the skipper of the *Shubrick* was especially gifted. Charged with carrying supplies, materials, equipment, and passengers to the country's lighthouses, the tender captains would have been remarkable seamen experienced in maneuvering their ships through hazardous waters. Whatever the skipper's particular skills, he was able on 30 May 1870 to safely take the *Shubrick* across the Yaquina Bar, a task not all captains managed to do.

One month prior to the *Shubrick's* arrival at Newport, an announcement of intent was published in the *Corvallis Gazette*. The article read in part:

Washington, March 31, 1870

EDITOR GAZETTE—*Dear Sir:* I have just been before the House Committee on Appropriations. They have agreed to put into the pending Appropriation Bill \$20,000 for Harbor Lights at Yaquina Bay, and promise at the next session to appropriate \$90,000 for a Light House and Fog Signal at Cape Foulweather.

The Light House Board seem to be inflexible in the opinion that Cape Foulweather is the most suitable point for an ocean Light House.

Yours, very truly,

GEO H. Williams (23 April 1870)

The second paragraph of Senator William's comments would become the subtle undercurrent of folklore for generations to come. As shown here, the power struggle between the desires of Newport's citizens and the wishes of the U. S. Lighthouse Board were in play from the beginning of their request to light the Yaquina area. Herein arises the political basis of contested space that is so much a part of the area's history.

Three lights were under consideration: two range lights for the harbor entrance and one sea coast light. Both styles of lights were important to the area, but each served a different purpose. The uses for the harbor lights were more immediate and closer to shore. As such, the lens of the smaller beacons did not need the focal range vital to the larger seacoast sentinel (see Table 2, previous chapter). Since the latter lighthouse is an important servant to vessels running at sea, the position of the stronger lantern had to be based on different criteria than that of the harbor lights. It was the lantern capacity and the shape of the land as well as the need that the Lighthouse Board disputed.

Three-and-a-half miles to the north of Yaquina Bay, the Yaquina headland blocked the visibility of the bay from ships coming down from a northerly direction. Set too far inland, had the Bay Lighthouse been entrusted with a first order Fresnel

lens it would not have provided any assistance to ocean-going vessels on the north side of Yaquina Point. From the Lighthouse Board's perspective, a coastal light more prominently located on the headland was the only practical solution. A fifth order Fresnel lens was installed in the Bay Lighthouse and a seacoast light constructed at Yaquina Head. In time, the first order lighthouse would be operated at the sacrifice of the smaller Bay Lighthouse. What is not clear in the research is why the Bay sentinel became obsolete or why the loss of the fifth order lighthouse caused such problems for the townspeople and businesses in the area.

Although it is true that without a harbor light to mark the entrance of the bay, the bar which was dangerous during the daylight hours became unquestionably more hazardous at night. It is equally true that without the benefit of the lighthouse to help secure a safe sea lane, the chances of shipwreck increased. But ships crossing the Yaquina Bar could navigate a course by the light at Yaquina Head, so the harbor entrance remained marked and accessible even without the smaller light on the bluff. Continued research did not disclose a precise explanation for the community's resistance to losing the small beacon or why building the seacoast light on Yaquina Head was such a point of contention.

A little known story handed quietly down through the years came out during one of the interviews for this paper. Simply stated, the Lighthouse Board did not want to place a harbor light in Newport at all and only built one to pacify the community until the larger coastal light could be built to the north. The Board's plan was to staff and support the Bay Lighthouse until the Cape Foulweather Station was

operable. At which time they would decommission the smaller light and maintain the larger light by itself (Maines 2002).

The subtle narrative readily explains the short life of the Bay Lighthouse but also leaves many unanswered questions. Spending \$20,000 on a building that will shortly be obsolete seems a long way to go to appease a community the board planned to anger two years later. Money is hard to come by in any generation, and \$20,000 carelessly spent by a country still recovering from a civil war seems a bit outrageous. However, as history played out, the two lighthouses only operated concurrently for approximately one year before the Lighthouse Board proved the inefficiency of the harbor light for vessels running at sea and decommissioned the little light on the bay. Political pressure imposed on the U. S. Lighthouse Establishment forced the Lighthouse Board to build a sentinel they did not believe was necessary. The same pressure did not convince them to keep the light active. In this sense, the power shift both created and decommissioned the little sentinel on the hill. In the board's opinion the economic needs of Newport did not warrant keeping the bay entrance marked with a neighboring lighthouse. Their decision stood unchecked.

Although only implied in Wall's earlier observation quoted above, the symbiotic relationship between a lighthouse and the nearby community it served can be seen in the history of Newport. With the successful settlement of any area came an increase in shipping and a lighthouse to assist maritime traffic. With the increased commercial possibilities of an established shipping route came more businesses to the community, an economic cycle that continued the process of

settlement and expansion. In general, the loss of a lighthouse could be quite a blow to a fledgling community. If ships were rerouted to by-pass a local port, the loss in revenue could stunt a growing township.

The hope of once again seeing the Bay station operational hinged on linking the Willamette Valley to the town of Newport via a railroad. Even the Lighthouse Establishment recognized the need to recommission the beacon if the dream of a railroad connecting the interior region to the bay materialized and sea-going commerce increased:

Yaquina Bay, unlighted station, Oregon.—The dwelling was in such wretched condition as to be almost uninhabitable. *Anticipating the relighting of the station on the completion of the railroad from the Willamette River to Yaquina Bay*, and to prevent the building from going to ruin, the roof and the outside sheathing have been renewed and other actually necessary repairs have been made. (U. S. L. H. E. 1878, emphasis added)

Again, the relationship between commerce and the sentinels is underwritten in the Lighthouse service report. In terms of contested space, the Lighthouse Board did not value the commercial possibility of Newport as an international harbor to the same degree as those supporting the community. The board had the power to enforce their opinion—the town did not. Nothing in the research uncovered the financial repercussions of the board's decision. Nevertheless, the instability of the shifting Yaquina bar and the loss of the harbor beacon surely had an impact on the city planners' hopes of turning Newport into an international harbor, a dream repeatedly hampered by the danger to shipping, until the eventual construction of the north and south jetties.

Unfortunately for the lighthouse and the surrounding community, the railroad tracks were not laid for several years. By then, the sentinel was in great disrepair

and the Lighthouse Establishment wanted to sell it. Conversely, no one wanted the dilapidated old lighthouse at any price. The little harbor tower that was so pristinely maintained by its one and only keeper had fallen into shambles. The light that had once been constructed in hope was abandoned by political expediency then left to decay until restoration. During the years it was commissioned, however, the fifth order beacon served the surrounding community faithfully, albeit humbly, had only one keeper.

Charles Pierce and his family were possibly aboard a lighthouse tender when they caught their first glimpse of the light that would be their home. On arrival, the family seems to have included Mr. and Mrs. Pierce and possibly six of their children: Franklin, born 5 October 1853; Gertrude, born 6 March 1865; Harriet, born 1 October 1860; Storer, born 21 December 1866; Eugene, born 9 April 1868; and Sarah, born 3 December 1869. The oldest son, Charles, born 11 September 1851, is not believed to have come with the family to Newport. Another child, Storie, born 2 January 1856, is thought to have died during the family's stay in Alaska. A final child, Katherine was born 25 March 1872 while the Pierces were stationed at the lighthouse. Records vary as to how many children Charles and Sarah Pierce brought with them to the lighthouse. This list is taken from Dorothy Wall's history of the station (Wall and Webber 1994, 25)

When the family left Fort Tongass, Alaska, early in 1870, they had waited in the Washington Territory for Capt. Pierce to return from business back east (Wall and Webber 1994, 46). The trip south from Fort Canby to Newport would have been

much easier by sea than overland by wagon. No extand records indicate how or when the Pierces arrived at the station.

Charles Pierce had been an Army officer for twenty-four years before sending a letter to one of his earlier military acquaintances asking for a position that would allow him to provide for his family (Wall and Webber 1994, 114). His appointment as the keeper of the Yaquina Bay Lighthouse was the first of his lightkeeping assignments. No remaining records indicate what he thought of the station or his new post. Sarah Pierce was an army wife who had for years followed her husband to his various assignments, setting up house in whatever territory she found herself. She and the children had traveled around Cape Horn to reach Captain Pierce on the West Coast several years earlier.

Little is known about the Pierce family or about their stay in the lighthouse. Station records are few. What follows is an analysis of the remaining evidence of their lives during their stay at the lighthouse and the building they tended to keep the lantern burning.

On 30 January 1871, Robert Stockton Williamson, lighthouse engineer, submitted a floor plan for the Bay Lighthouse. A second set of plans, submitted 27 March 1871, was considered then rejected (Wall and Webber 1994, 38). The January designs, and the building that grew from them, are the first clues to the vernacular culture and domestic impact of light tending. Remaining artifacts provide clues connecting the social preference of an established culture with the physical demands of a remote location.

The chosen lighthouse plans called for a central hallway running the length of the building (see figure 3). The back door opened directly into the kitchen. Since the cooking area was to the north of the hall, the front and back doors were offset. By keeping the door between the hall and the kitchen closed, this design helped to decrease the wind flowing through the outside doors into the house. In an exposed area frequently inundated by strong winds, such an arrangement would have slowed down, at least a little, the amount of sand carried through the station by the wind, providing the side doors off the hall were also closed.

Sand would have been a constant battle for the homemaker trying to keep the living quarters dust free and immaculate. Dirt was not allowed in any of the lighthouse buildings as sand and dust were too easily transferred onto the clothes and boots of the keeper. The risk to the lens was great. Small grains of sand and dust could scratch the prisms and diminish the capacity of the light. Consequently, homemakers and keepers alike were extremely watchful. In an environment where sand surrounded the lighthouse, there was an inherent danger to the lantern in the very location it was built to serve. In this regard, the challenge of contested space was contained within a small bit of sand or a speck of dust and the ability of that tiny grain to damage the purity of the lantern. The Lighthouse Board issued explicit standards of housekeeping to combat this danger to the light and conducted quarterly inspections to ensure that these ideals were maintained.

The authority of the U. S. Lighthouse Establishment to influence the domestic arenas of the keepers homes is further witnessed to in the interior design of the lighthouse. With their headquarters centered back east where social mores and

protocols were deeply embedded in the culture of the day, the Lighthouse Board transferred their building preferences and fashions to the stations in the west. When working with local designers, the influence of the national taste was transmitted to the structures created to serve the remote coastal areas of the country.

By many appearances, the Bay Lighthouse is representative of its northern middle-class counterparts. Although the Georgian influence on home design had been prominent several years prior to the building date of the lighthouse, lingering overtones from the earlier period grace the simple architecture of the station. Symmetry and balance are key aspects of both the interior and the exterior of the living quarters. The craftsmanship embedded in the construction of the light is demonstrated not only in the materials but also in the quality of the woodwork. The Lighthouse Establishment built dominantly with hardwood, which allowed for a great deal of wear in the life of the station. It was also pretty. The varnished wood of the stair railing in contrast to the ecru or white walls adds a rich texture to the simple clean lines of the interior.

An observer walking around the outside of the Lighthouse, will notice that the station looks like any other two-story home of its day. The shingled sides are straight and even. The symmetry of the design appears to be perfect (see figure 4). On the north side of the building, the cistern holding the station's water supply is buried next to the outer wall nearly opposite of the kitchen. Rain gutters line the house at ever declining angles to channel the water into the underground tank. East of the cistern is the wood house attached to the back of the station. Approximately twenty feet long and eight feet wide, the shed provided a way to keep the

(A)



(B)



Figure 4. The Yaquina Bay Lighthouse. (A) The front of the station faces west towards the Pacific Ocean. (B) The wood house on the northeast side of the station. The lantern room rises up through the center of the station.

household fuel dry during the winter storms.

The water closet was conveniently attached to the east-end of the wood shed. The south exterior wall of the shed provided some protection from the weather when it came time to use the privy. Ironically, according to the floor plans, no connecting door was placed between the inside of the woodshed and the water closet. Although the covered walkway was exposed to the winter storms often coming from the south, the plank board walk negated the added inconvenience of walking through wet sand and mud.

As a side note, indoor privies were not an instant success. The living quarters at the Yaquina Head Lighthouse had a design similar to the Bay station, the water closet was attached to the end of the wood house on the original plans. However, a change seems to have been made during construction as the privy does not appear to have been added to the shed but built apart from the house. At Heceta Head, the bathroom fixtures sat in the barn for a year before being installed in the upper rooms of the house (around 1912). The indoor facilities so prized by the twenty-first century are a recent cultural event. The nineteenth century was less convinced of the merit of having the outhouse so close to the living quarters.

The porch steps and back entry of the Bay Lighthouse are situated on the southwest side of the station. This entrance leads directly into the kitchen and private living area of the keepers. Three stories high, the tower climbing up through the station is most arresting from this view. The lantern seems to rise silently through the center of the keeper's home to declare its mission.

Before discussing the interior of the house, a review of the outlying domestic areas of the light sheds further understanding to the challenges the keeper faced in maintaining his family and the lantern. Due to the lack of extant records, there is some question as to whether or not a barn was part of the lighthouse proper (no floor plans for any possible outbuildings remain). One supposition is that with the family in such close proximity to town, a horse and wagon would not be needed. A short walk down the hill would have taken the Pierces to the bayfront and the commercial center of the community. There are, however, other points to consider before determining whether or not any outbuildings were associated with the sentinel.

The Bay station, like all lighthouses, was supplied by a lighthouse tender. When the ship docked in the bay, Keeper Pierce would have needed a way to transport fuel for the lantern and dry goods for the family from the supply ship to the station. Although he may have rented a carriage from a local livery, it seems unusual for such a large family not to own a buckboard. A horse and wagon were fundamental equipment for most nineteenth century homesteads, unless a family could not afford to keep the animals. Maintaining a team at the station would have been useful and not an exceptional protocol for Keeper Pierce and his family. Any barn available for quartering a horse and carriage would also have housed a cow.

The Pierce family included several young children. A cow or goat would have provided fresh milk as well as supplied the family with cheese and cream. In addition, a small chicken coop would have been handy. Chickens supplied eggs for baking as well as meat for the table. Maintaining a small cache of chickens was a

common practice for the early Newport families. A household used to providing for themselves in rural Alaska might find living near a commercial center convenient, but not necessarily a reason to change their lifestyle. Furthermore Lightkeepers did not earn a large salary and were encouraged by the board to grow their own food. Renting equipment and buying all their groceries would have been quite an expense on a lightkeeper's salary.

Since the lighthouse families lived in whatever quarters were provided by the Lighthouse Establishment, if the board had chosen not to supply the station with the typical farm conveniences of the day, there was little the Pierce family could have done to change the board's mind. It is possible that the Board did not see any reason to supply the buildings requisite for the lighthouse family's livelihood, yet the whole of these issues combined (food, transportation, rural norms, etc.) make it likely that there were at least a few outbuildings associated with the lighthouse. Such a conclusion is conjecture but conjecture based on the cultural standards of the day. The same reasoning holds true for the missing garden area.

In the twenty-first century, a garden may often be a luxury to urban families rather than a necessity, yet in 1871 the reverse was true. People in rural communities lived much closer to the land than most city dwellers do today. So the question becomes not whether the Pierce family grew a garden, but rather where such the vegetable patch was placed and how it was cultivated.

Working under the premise that all able-minded people are experts in the requirements of their own life, then believing that the Pierce family had the essential husbandry skills to provide for themselves in their new environment seems like a

reasonable deduction. Equally plausible is the notion that the station supported a garden plot, although the exact location is currently unknown. Homegrown produce was the most expedient way to provide fresh food for nineteenth-century rural families. There were, nonetheless, some drawbacks to the lighthouse grounds, the sandy soil and the high winds being the chief impositions.

The land surrounding the lighthouse is capable of sustaining plant life. Although the area is often barren in early pictures, it is lush now. In part, the soil is one of the most challenging aspects of this contested environment. Lighthouses are, in general, established near water, and often that water is on a sandy shore. On one level of contested space, the lighthouse battles the vagaries of nature on a large scale while on another level the lighthouse families battled nature on a smaller one. The Pierce family needed an area somewhat protected from the wind and wide enough to plant. The lower level behind the light station, accessible in the early days of the community by a plank road, provided such a possibility. The outlying tract is a short walk from the lighthouse proper, yet it was close enough to attend daily. Fertilizer was obtainable from livestock—provided there was livestock and a barn to house them—and water hauled either from the cistern or from up the river could be carried down the hill for irrigation.

Early photographs of the lighthouse, while not extending back to 1871, are probably within twenty years of the construction date and usually taken facing the front of the station. No outbuildings are seen; no garden plot is visible. And yet a family of nine lived at the lighthouse for three years. While proof of their lives may not have surfaced in the research, there is sufficient reason to believe they

functioned like any other nineteenth century family making a place for themselves in a rural town at the mouth of a river.

Visitors walking to the front of the station enter the interior of the lighthouse and the social structure of a Victorian family. As guests step across the threshold, the design of the hall makes a striking picture (see figure 5). From the front entrance, the stairway climbs along the left side of the entry to the second floor. Downstairs, two chambers open off the hall to the right; two rooms open to the left. Myrna Kaye, the author of several books on antique furniture, discusses the importance of the entry hall in her book, *There's a Bed in the Piano: the Inside Story of the American Home*.

The most dramatic Georgian change to the house was to its entry hall. Placed at the center of the house, it was also at the center of activity. It ran from the front through to the back of the house, affording access to all the rooms, and its stairway presented the path to the rest. The hall introduced the entire interior. (Kaye 1998, 128)

Several pages later, Kaye elaborates on the important role the hall upheld in the tastes of the culture:

In the mind-set of the time, the hall was where the house made its first impression. If the aim was to impress, as it often was, that goal governed the design, cost, lavishness, and size of the hall furnishings, especially the hall tree. Americans of modest means and a middling place in society bought hall pieces that were modest in size and materials. (Kaye 1998, 148)

According to Kaye, whether the Victorian family was a part of the upper classes or of more modest means, attention was paid to the hall. Within this area, the first social imprint of the home is made. The main corridor of the Bay Lighthouse seems to follow the preferences of the culture that designed it—the entry makes an impression.

The hallway leads a visitor from the exterior of the home deep into the



Figure 5. View of the Yaquina Bay Lighthouse downstairs hall from the front entrance of the station. The room off to the right is the parlor. At the back of the hall is access to the oil room. The room inside the hall and to the left is the dining room.

heart of the station while preserving a separation of the family living quarters from the social rituals of the day. In this the passageway meets the social needs of a Victorian family as discussed by Kenneth Ames in his article "Meaning in Artifacts: Hall Furnishing in Victorian America" (Ames 1999, 212-213).

The lighthouse hall, once so indicative of the cultural attitudes and expectations of its age, seems strangely empty now. Meticulously maintained by museum volunteers, the polished wood and well-swept floors fail to echo the social needs of a late nineteenth century family. The hallway is vacant; no evidence remains of the hall table, the hat stand, or the plank bench which housed "gloves, brushes, and other small items" (Ames, 1999, 218) so necessary to maintaining or repairing appearances. Although not extensive in length, there is nonetheless room in the corridor for a hat stand or a small table. If the hallway was as much a part of nineteenth century customs as Kaye implies, then it seems the Lighthouse Establishment made it possible for the family tending the light to maintain the culture of the day at the lighthouse. In keeping with this idea of social arrangement within the lighthouse, other rooms in the station display a similar conformity to prevalent fashions of the day.

According to the early station plans, the front room to the south was designated as the parlor. Behind the parlor was the oil room. At the front of the house on the north side of the hall was the dining room. Behind the dining room was the kitchen. With both the parlor and the dining room in the foreground and the oil room and kitchen in the back, the Victorian middle-class sense of order was sustained: formality in the fore, utility behind.

With the front elevation of the station facing west, the Pacific lies before the parlor windows in a panorama of fresh ocean breezes and cresting waves. For anyone watching the ocean on a bright, clear day, the purpose of the lighthouse can seem remote and obscure. But weather may change in an instant. The temperature drops suddenly and within two hours the sun is hidden behind a thick blanket of fog so heavy the south jetty is obscured by a transient opaque haze. The hazard to shipping is once again real and the beacon's purpose clear: there is danger on the water and nature does not always act to befriend humankind.

Stepping into the parlor from the hall reveals further evidence of the care with which the lighthouse planners designed the lighthouse. The room is good size, approximately twelve feet wide and fifteen feet long. Two tall windows run across the frontage wall and one is set along the southern wall. Storm shutters hang from every window of the living quarters. Once closed, an immediate aura of intimacy floods the interior of the rooms. Created to be a part of the night, the lighthouse exterior comes alive with the beam of the lantern while the interior falls into a dusky twilight contrived by candles or handheld lamp. Little light filters through the shutters. The halls, parlor, and kitchen fall into shadows. A lamp or fireplace flame becomes the only source of light to see or work by. The beacon is a tool of the night; the interior is a part of the day.

The nocturnal nature of the lighthouse did not deter the tending families from maintaining a regular daytime schedule. In this the Pierces dealt with the same problems all families face when one member has an offset schedule. Did the shutters block out the sunlight so that Charles Pierce could sleep during the day?

Was Sarah able to keep the smaller children quiet as they ran across the hardwood floors while their father rested? As the only keeper at the station, unless one of the older children, such as Franklin (who was eighteen when the family arrived) or Gertrude (who was thirteen in 1871), shared responsibility for part of the nightly watch, Charles Pierce would have worked seven days a week. Nothing in the research indicated the effects his nocturnal duty had on the family, yet certainly there was some necessary adaptation of the family dynamics to accommodate the different schedules. Lighthouse families faced the same disparity of schedules everywhere. For some families the differences in schedules may have added to the contested nature of life at a lighthouse, for others it may not have been a problem.

The few stories told about the Pierce family in Dorothy Wall's book add credence to the belief that the Pierces were a proper Victorian family. Sarah Pierce insisted on using table linens during the evening meal and each child had his or her own napkin ring. Further, the children were not allowed to speak at the table (Wall and Webber 1994, 46). Though living in a remote part of the county, the rigors of Victorian culture were staunchly maintained.

Mrs. Pierce's insistence on upholding the dining etiquette of her upbringing parallels the cultural retention of many immigrants transplanted into a new territory. Having left behind the homeland of their heritage, these settlers strove to retain the manners and rituals so much a part of life in the Old Country. In this way, they retained their ethnic identity in a foreign land. Though surrounded by sand and living in a small, barely established village, the Captain and Sarah Pierce, themselves reared with the Scottish and Irish principles of their birth and the East Coast society of their

early years, saw to it that their family learned the customs and rituals of the day.

Fortunately for the Pierces, the living quarters supported the social norms of the late 1800s.

The original floor plan for the kitchen shows a remarkably modern approach to food preparation (see figure 3). A freestanding stove is drawn on the original plans. Although a cook stove had for many years stood before the hearth in the kitchen, it was not until the end of the Civil War that freestanding wood or coal burning stoves became popular (Kaye 1998, 158). To see one so prominently displayed in the design of the lighthouse indicates the willingness of the governing board to provide adequate quarters for their keepers whenever expedient.

Because the lighthouse tower was the most important part of the station, the keeper's quarters were sometimes an afterthought, if considered at all. Occasionally the living arrangements lacked the requisite amenities necessary for comfortable living, such as enough space, storage, or heat to maintain a family or even a single keeper. The Lighthouse Board seems to have been more attuned to the needs of the keepers when they built the West Coast stations than in earlier lighthouses along the East Coast. The living quarters provided to the Pierce family were both roomy and modern, an unusual situation for the lighthouse families. Kathy Straton discusses the layout of the Bay Lighthouse in her proposal for turning the lighthouse into an interpretive center:

Two significant observations have been made about the [Bay] lighthouse which were considered during the development of the refurbishing plan: (1) as a lighthouse structure the building is more spacious than most; and (2) the floor plan, while appearing to be a typical one for simple cottage/country homes, is not very functional in some aspects.

With regard to the first consideration, F. Ross Holland indicated that "The lighthouse is. . . large, especially for a lighthouse with a 5th Order lens. Many other more prominently sited lighthouses did not have such spacious quarters. The government simply did not provide elaborate living space for the keeper.... Normally lighthouses did not have both living rooms and parlors. Keepers just simply had the bare space necessary to exist and not always comfortably." (Straton 1975, 8)

Straton's observations ring true in an examination of the Bay station; the rooms themselves do seem to be of good size and there do appear to be a few inconvenient features to the lighthouse. The kitchen is one of them.

The greatest curiosity of the lighthouse is the kitchen. The kitchen proper is a square room with two large windows. The Pierces arrived at the lighthouse with six children ranging in age from one to seventeen. Before their transfer to Cape Blanco, Sarah Pierce delivered a baby girl. Knowing the stringent housekeeping requirements of the U. S. Lighthouse Establishment, the demands of seven children, and the limitations of her domestic environment, two questions come to mind: how did Sarah Pierce function in such an unusual kitchen and how did she meet the needs of her family while maintaining the white glove standards of the governing board? Nothing in the research answered either of these questions.

One of the challenges Mrs. Pierce faced when maintaining an uncluttered home would have been storage space. Although the kitchen is a fairly good-sized room (roughly eleven feet by eleven feet), it offered few conveniences. A kitchen alcove had the only built-in counter space and cupboards available for storing food, dishes, or pans. A smaller pantry to the right of the backdoor facing outward contained one cupboard and a small set of shelves but offered little else in the way of storage. A small room made even smaller by its unusual shape, this miniature

pantry would not have provided much in the way of useful storage but might have been convenient for holding linens and small kitchen utensils.

The early kitchen alcove located to the east of the kitchen proper no longer exists. It has been walled in and converted into an office. The only evidence that this pantry was ever a part of the kitchen lies in the early floor plans (which indicate a door leading into a room) and a photograph taken in 1951 (which shows an open area). The photograph does not show a sink (although one corner of the room is hidden from the camera's view). If the room were designed with the standard domestic objectives of the 1870s in mind, this area would have been used to store flour, sugar, and other dry goods. Without it, Sarah Pierce would have had to improvise storage bins for her dry goods.

Viewing the kitchen as it is now, one wonders if Sarah Pierce could have operated her home without the small, but vital, storage and preparation space originally provided by the missing alcove. The loss of such an important aspect of nineteenth century home life is disappointing. Preservation groups must often choose between what is most necessary for interpretation and what is affordable by budget. Such choices are a judgment call on their part, but one wonders what the protection group was interpreting by removing this portion of nineteenth century family life and why the restoration crew thought the loss of this room would more adequately portray life at the lighthouse in 1871.

The preservation of the nation's maritime history creates its own contested space. The present kitchen display was not originally a part of life at the lighthouse. Somehow the choice to remove the pantry alcove was believed to be a better

interpretation of the past (or was more convenient for running the museum). This weighting of factors by groups interested in preserving historical artifacts can conflict with the norms of the people being represented. Modern thought often determines how a lighthouse is interpreted, and current thinking operates with different priorities than the time period museums often seek to display. No easy answer to this conflict exists. In some ways, the past is the past because better ways were found to accomplish the same task, and yet it was the success of these earlier accomplishments that makes these endeavors so valuable and worth remembering. This interpretive loop is an aspect of contested space that will most often exist wherever one culture reenacts the behaviors and conventions of a way of life outside their own. The redesigning of the lighthouse kitchen is a common example of the kind of choices museum curators often face.

One of the benefits of the chosen floor plan over the discarded second set of plans was the layout of the upper floor (see figure 6). The 27 March 1871 plans had one large chamber on each side of the hall running the length of the building. Such common rooms had been typical designs in rural areas prior to the industrial revolution. Lizabeth Cohen has explained the refocus of middle-class families on privacy as a response to the developing urban centers of the nineteenth century. As their lifestyles changed, the middle-class tended to separate their rooms by specific function and a desire for distinctiveness (Cohen 1999, 296). The division of the second story into four individual chambers was yet another sign of modernity and cultural preference. With seven children to tend, four separate chambers must have come in handy. Like its downstairs counterpart, the upper hallway (see figure 7), seems

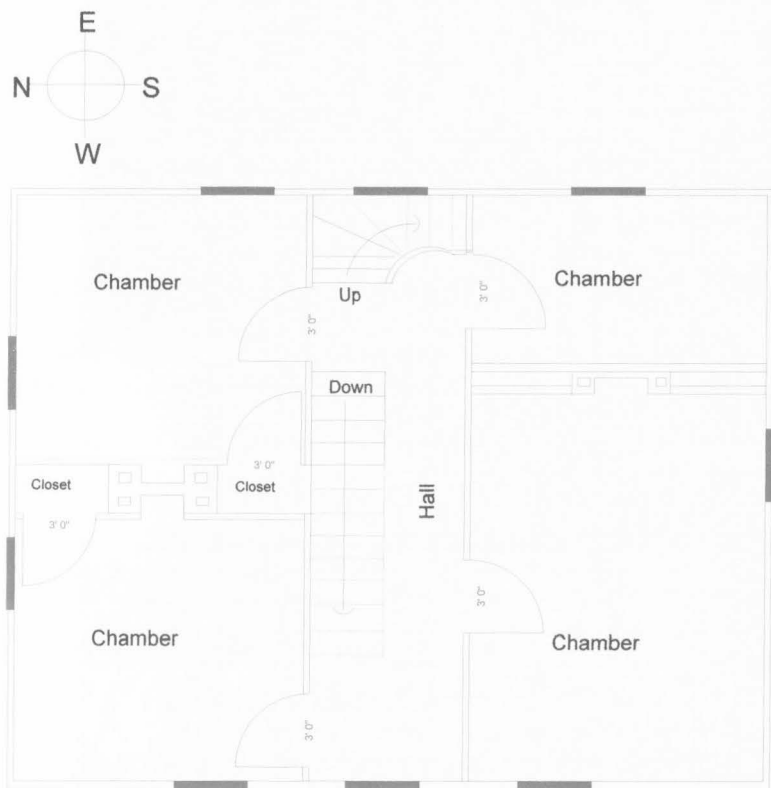


Figure 6. The Yaquina Bay Lighthouse second floor layout. The upper hall separates the sleeping chambers. Adapted from Wall and Webber 1994, 37.

(A)



(B)

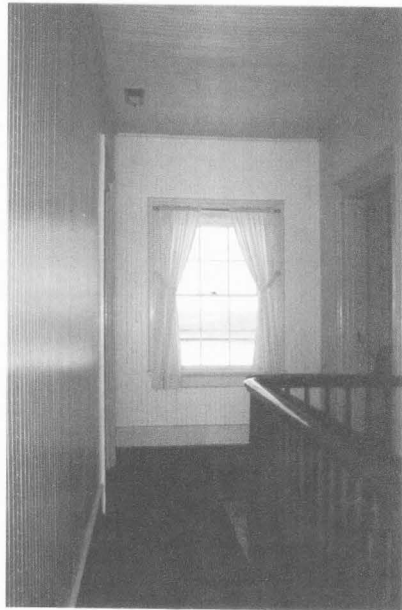


Figure 7. The upper hallway of the Yaquina Bay Lighthouse. (A) Facing east towards the stairs leading to the lantern room. (B) Facing west towards the front of the station.

hauntingly barren as though something or someone is missing—a table, a lamp, a chair, some echo of the family that once walked the quiet corridor and passed through the upper rooms.

Whether it was the freestanding stove, the hand pump in the kitchen, four separate chambers upstairs, or the water closet attached to the end of the wood house, the station was calculated to keep a family securely if not conveniently. In this the Lighthouse Board seems to have provided Charles Pierce and his family the opportunity to enjoy the cultural mores of their time.

On a domestic level, the contested environment of the sandy soil and the high winds coming off the ocean may have made cultivating a garden difficult. If it is true that the Lighthouse Board did not provide the traditional outbuildings of a rural home, the board ensured that the family had to rely on local mercantiles for groceries and the livery for transportation needs. Conversely, the board acknowledged the cultural preferences of the day and constructed a lighthouse wherein a family could participate in the social protocols of the age. Such contradictory behavior seems insensible. It is far more likely that a part of the station's records are missing and that the outbuildings and vegetable garden were originally calculated into the decision to build a lighthouse on the bluff.

The issues of contested space for the Bay Lighthouse were political, domestic, and interpretive. Desired by the community but disapproved by the Lighthouse Board, the Bay Light was pulled between the two until the Lighthouse Board finally ended the power struggle by decommissioning the harbor light and focusing their support on the larger coastal light at Yaquina Head.

Though only an active beacon for three years, the Bay Station found root in the regional memory of the community. The sentinel's record as a vanguard of danger is undistinguished, but the station's claim on the early hopes of the newly chartered community of Newport stamp the beacon as an important historical structure. The lighthouse remains, after decades of controversy, the center of folk narrative—continuing with every retelling the power struggle that the community lost. In the following chapter the history of the Yaquina Head Lighthouse comes under scrutiny and the other half of the power struggle plays itself out.

CHAPTER IV

BEACON ON THE HEADLAND

The Yaquina headland three-and-a-half miles north of the Yaquina Bay extends almost a mile into the Pacific. The basaltic outcrop that formed millions of years ago is now covered with tall grasses and wild flowers that bend in the breeze (see figure 8). Jack Delaine and Stephen Dow Beckham in their article, "The Keeper Log," discuss the history of this beautiful outcrop, which was for hundreds, possibly thousands, of years home to the Yaquina Tribe of the Coast Range before being abandoned by them almost 2,000 years ago (Delaini and Beckham 1994, 4-5). In 1871, the headland became home to still another coastal group: the U. S. Lighthouse Establishment.

A survey conducted in 1870 by Col. Robert Stockton Williamson, lighthouse engineer, proposed the establishment of a beacon on the Yaquina Head (then referred to as Cape Foulweather). His proposal was in opposition to a second possible site five miles further north, also named Cape Foulweather, a part of which had also been set aside as a lighthouse reservation (see figure 9). During Williamson's survey, he found that the richly forested Cape to the north of the headland would require too much work and expense to used as the foundation for a lighthouse. The Yaquina point offered a better choice for a sentinel. Construction access to what is now Yaquina Head would be less costly than the higher point to the north. The headland also had the added advantage of being at a lower elevation, an important attribute in fog.

The dual use of the "Cape Foulweather" designation has been a point of



Figure 8. Yaquina Head Lighthouse. The force of the wind is bending the flowers and grass.



Figure 9. Cape Foulweather as seen from Yaquina Head. Fog almost obscures the tip of the cape and would have caused problems for mariners if a lighthouse had been placed at that elevation.

contention in the continued retelling of the mislocated lighthouse narrative.

Captain Cook first sighted and named Cape Foulweather during his third exploration of the Pacific in 1778. However, maps spanning the last quarter of the nineteenth century often list Yaquina Head as Cape Foulweather. Cook's Cape Foulweather is the cape five miles north of the Yaquina headland. The confusion in designations was further complicated when the U. S. Lighthouse Service set aside two lighthouse reservations: one on Cape Foulweather to the north and one on today's Yaquina Head.

Some versions of the mislocated lighthouse narrative told today hold that Yaquina Head was not referred to as Cape Foulweather until after the lighthouse was built in the wrong place. Still other versions say that locals referred to Yaquina Head as Cape Foulweather even before the station was established. Either way, the dual use of the "Cape Foulweather" name has been separated over time and no longer exists. Nonetheless, for many years, the Lighthouse service reports listed the Yaquina Head station as "Cape Foulweather Lighthouse, Yaquina Head." In this, the reports listed both the name of the light and its location, a common practice for the Lighthouse Board.

The Coquille River Lighthouse is similar situation where a lighthouse was listed by both its name and location. The U. S. L. H. E. referred to the beacon as the "Coquille River Lighthouse, Bandon, Oregon." Popular custom refers to this station as the Bandon Lighthouse, but the reference is inaccurate, as the museum docents will quickly explain. The river sentinel was classified as the Coquille River Lighthouse and referred to as such on the service reports for the light. Unlike Yaquina Head,

however, in the case of the Coquille River light, popular opinion did not sway the Lighthouse Establishment to change the name of the Coquille River Light as it did for the Yaquina Head Lighthouse.

For any historian seeking an unimpeachable rendering of the past, the Cape Foulweather/Yaquina Head research trail has cooled. It is no longer possible to clearly know for certain if common vernacular overrode the original Cape Foulweather designation or if the point truly was referred to as Yaquina Head prior to the beacon's construction. Early records for the area go either way.

Proponents of the mislocated lighthouse narrative cite the use of the Cape Foulweather name as evidence that the lighthouse builders made a mistake when they constructed the light on the headland. Although the double use of the same name causes confusion, the inconclusive terminology does not seem to be the real crux of the lighthouse tale. Instead, hidden behind the distraction of the Cape Foulweather appellation is a trace of the original problem: the power struggle between the early Newport community and the Lighthouse Board. With every retelling, the frustration of a lost community dream is relived. By perpetuating the supposed error of constructing the lighthouse on the wrong cape, the foolishness of the Lighthouse Board is retold again and again.

The political tug-of-war between the citizens of Newport and the Lighthouse Board was one of perspective. The Lighthouse Establishment was convinced that the more powerful seacoast beacon would better serve shipping if displayed on an outcropping clearly visible to ships further north of the bay. The little community of Newport, however, wanted the light to mark their position. In this, the town won the

interim battle but lost the war. The U. S. L. H. E. was forced through political lobbying to build a fifth-order light on a Newport bluff. Momentarily defeated, the Board manned the smaller light only until the seacoast light was finished, then stepped in to prove their point, the larger light on the headland was a more effective navigational aid for passing ships. The Bay Lighthouse was decommissioned and its keeper transferred to Cape Blanco. Although the Board's decision was final, the power struggle continued.

Interpretations of the mislocated lighthouse account vary with the telling. One version has it that after the chief contractor died, his son came forward to admit that his father had covered up a shipping error. The building material had been landed at the wrong location. The lighthouse should have been built on Cape Foulweather further to the north. Rather than admit the blunder, the contractor built the lighthouse where the supplies had been offloaded. The contractor saved face by building the station where the materials had been landed and not mentioning the mistake to anyone. The implication is that the Lighthouse Board was either too far away to know that construction was occurring in the wrong location, or that by the time the station was built, the Board would consider moving the tower too much trouble.

This version of the narrative gains further credibility with the added endorsement of the son's actions. By remaining silent until after his father's death, the informant fulfilled the role of a good son. By waiting to expose the faux pas until after his father's passing, the son showed his own integrity by freely admitting his father's mistake. In both situations, the story gains credence through the rectitude of

the son. After all, the implication of the son's behavior asserts, why bring up the mistake if it had not really happen? The "good child" character is added to many folk narratives to strengthen the reliability of the whole. Nonetheless, more than the son's compliance was needed to make the alleged switch in locations possible. The local townspeople had to help as well.

The community's implicit participation is implied in the narrative. *No one* warned the Lighthouse Board of the contractor's error or of his overriding decision to change lighthouse reservations. True, communication moved at a much slower pace in an age when mail arrived tri-weekly, but it takes a long time to build a masonry tower. Materials would have been continually re-routed to the new destination. Shipping manifests, progress reports, and other government paperwork would have been altered to continue building in an unexpected sector. More importantly, the ships passing the exposed headland from many different ports would have needed to turn a blind eye to construction and not acknowledge the growing tower. Some of those ships would have been U. S. Lighthouse tenders moving up and down the coasts as they supplied other lighthouses in the district. Through their silence, the captains collaborated with the Newport community. How likely is such a visible conspiracy? Further, for the relocation to succeed, the engineers in charge of the construction site would also have needed to comply with the wily silence of the ships' captains and the townspeople.

In 1871, the Army Corps of Engineers opened an office in Portland, Oregon. This is the same year that work was organized for the Cape Foulweather lighthouse. Major Robert, author of *Robert's Rules of Order*, the groundbreaking standardization

of parliamentary meetings, was in charge of overseeing construction of the station. Is it plausible that a man who would later strive to bring order out of chaos in department meetings would somehow miss the expanding light station rising layer by layer in the wrong location? Such incompetence on his part seems implausible. There is a far more likely explanation, one more probable than Robert's ineptitude: the momentum of oral tradition.

The folk process is a powerful force that will not be derailed by facts. Generated and sustained by the needs of those who express themselves through regional stories and oral tradition, the mislocated lighthouse narrative continues to serve a point. The *facts* imply that the Cape Foulweather Lighthouse was built where it was originally intended. Yet the story of the station's relocation continues to be told. The thread of the narrative then may stem back to the original power struggle behind the light. If this is true, the contest of power underscoring the lighthouse story also remains the same: big government versus local communities, the foolishness of those who sit in far-removed offices verses the wisdom of those who live in the neighborhood. The message continues to apply at a time when fishing seasons and quotas are hot topics and points of contention. The mislocated narrative remains alive because its purpose remains alive, to remind the listeners that one person can make a difference.

The specific issues propelling the narrative have adapted to the times, but the core of the frustration remains. The current performances of the mislocated lighthouse narrative demonstrate a desire to believe that even the government can be fooled. Change only takes one person to head out on his own and for everyone

else to maintain their silence. After all, it happened once. Look at the Yaquina Head Lighthouse—the tower was built in the wrong place. The Federal government may have the money and the power to override the wishes of regional citizens, but the narrative implies that the crafty individual can outwit and outmaneuver an absentee landlord. Contained within the framework of the “mislocation” is a rejection of the patronizing “we know best” attitude of the Lighthouse Board. The early citizens of Newport could not stop the closing of the Bay lighthouse or the removal of the first order sentinel from the city limits, but they did not remain complacent about the results. Their opinion on the matter is still recounted.

In a sense, the local community won the “Battle of the Lighthouses.” Through the joint efforts of *Yaquina Lights, Inc.* and the Department of State Parks and Recreation, the Yaquina Bay Lighthouse is once again an operating beacon. The light is listed by the U.S. Coast Guard as a private aid to navigation (and as such must conform to certain guidelines), but the lantern is lighted and the beam can be seen throughout the night. The city’s founding fathers have at least a part of their wish. Although the first order light was not constructed at the mouth of the Yaquina River as they had hoped, the harbor light once again marks the Yaquina Bar. At the same time the Lighthouse Board has had their wish as well. The larger seacoast light still operates on the headland as a navigational aid maintained by the U. S. Coast Guard.

In the matter of the mislocated lighthouse mystery, contested space takes the form of narrative. The memory is passed on to visitors, researchers, and neighbors. The version varies depending on the storyteller, but the point remains the same: power goes to the one who can create change. In the case of the Yaquina

Head Lighthouse, overtly and initially, the Lighthouse Board was the one empowered, yet the oral tradition implies that in the end, just one man who kept his silence changed the outcome of where the lighthouse was constructed.

In the next discussion of contested space the battle for control moves from the political arena of lobbyists and power to the physical environment. The U. S. Lighthouse Board did not build the Yaquina Head station without a few setbacks. Access to the headland by ship had its hazards. Inclement weather and a rough sea took its toll on the lighters (small boats) off-loading supplies. During construction, two such boats foundered in an attempt to land construction materials. The loss delayed building progress until new commodities were obtained (U. S. L. H. E. 1871). After the station was operational, there were still problems in getting supplies to the light. In 1885 a tramway was built to help transport materials to the light:

An apparatus for hoisting supplies and material from the beach to the top of the bluff was constructed opposite a sheltered cove, where there is a good boat-landing on the southwest side of the cape, about 1,000 feet from the light-house. The apparatus consists of a tramway 3 feet wide and 130 feet long, extending up the slope of the bluff, which is 85 feet high, and a suitable car with a geared winch at top. A snatch-block was provided for hauling up light loads with a team of horses. Steps were fitted between the sides of the tramway. (U. S. L. H. E. 1885)

One wonders why the tramway was not originally constructed with the station. The location for the tram mentioned in the lighthouse service report would place the site near Quarry Cove today (see figures 10 and 11). Although nothing remains of the apparatus at this time, whispers of a vague recollection of the stairs were encountered during the research process. Building a winch adjacent to the cove would not have resolved all the safety issues of off-loading supplies since the shoreline near the southwest area of the point is shallow and rocky. Landing a

(A)



(B)



Figure 10. The mouth of Quarry Cove. (A) The entrance looks benign on a calm summer day. (B) During a heavy, winter surf entering the cove would have been more dangerous for the lighters.

(A)



(B)



Figure 11. Another possible site for tenders to off-load supplies for the lighthouse. Quarry Cove is immediately to the west. The site is larger than it appears in the photograph. An environment often becomes contested during seasonal changes. (A) The little cove looks benign on a calm, summer day. (B) The winter surf presents more of a challenge to small boats.

boat here would not be easy, especially during a heavy winter surf.

Established in 1873, the Yaquina Head Lighthouse was more isolated than the earlier Bay station. Still, even with the beach providing a smooth, flat surface to travel, there were problems getting material to the lighthouse. Lucy Blue in her reminiscences of the early years of Newport describes the challenge of landing material at the headland and the default offloading that occurred in Newport:

When the ocean was too rough for supplies to be unloaded on the lee side of the cape, the Government lighthouse tender "Shubric" would run inside the bay and deliver her cargo there where it could be hauled up the plank road, then wind on over the sand hills past Nye Creek to the "Jump-off," where the road abruptly descended to the beach again which it followed past "Big Creek" and climbed once more at the Briggs and Megginson ranch, winding around the north side of the first hill, coming in between the two and along the south side of the second, or seaward, hill in the same old grade you drive over today. (Blue 1980, 31)

In this same article, Lucy Blue describes the lumber road mentioned above, "The plank road was laid by order of the Government engineer who was finishing the Foulweather Lighthouse buildings that year" (Blue 1980, 30-31). The plank road was a necessity for transporting supplies from the dock to the station.

The Newport waterfront sits at the base of a steep, and at the time, sandy hill. Transferring supplies from the bayfront to the station was not a small task, but docking at the wharf was sometimes easier than landing near the station. Roads between the point and the small, nearby communities were primitive. Due to the dense forest between the headland and Newport, the beach was often used as a main thoroughfare. With a careful eye on the tides, the beaches provided an equitable way to move around.

The jagged coastline was not the only drawback to living conditions at the

Yaquina Head sentinel. Weather was a large part of life at the lighthouse. With winter storms coming in from the south, summer storms moving down from the north, and fog at any time of the year weather often impacted the keepers and their families. Rain might last throughout most of the day. Winds could reach up to 100 miles per hour and periodically cause damage to the station. During such a strong wind shear, sand and gravel were "lifted from their beds and driven against the buildings, injuring the shutters and breaking the glass" (U. S. L. H. E. 1880). This inherent problem made timing an important part of home-making at the lighthouse.

In a 1991 oral history interview conducted by Ann Martin for the Bureau of Land Management (BLM), Helen Smith talks about her grandmother's habit of hanging the freshly washed bed sheets out to dry during the early morning hours. To protect her linens from being transformed into shredded ribbons tied to a clothesline, Keeper Smith's wife had her sheets back in by 10 am (Smith 1991). The morning winds are often peaceful along this part of the coast. As the day wears on, however, the force of the wind increases. By late morning or early afternoon, the power of the breeze can be imposing. Hanging her bedding out early compensated for the challenge of doing laundry on an exposed and windy point. Wind was not the only challenge, full-scale storms also made life interesting.

During the oral history interviews for the BLM tales of the headland rumbling during severe storms occasionally surfaced. Heavy seas crashing into the caves below the lighthouse caused the point to release a cavernous growl that echoed up to the house. One story commemorates a particularly bad storm by remembering

that chunks of sea foam floated up from the beach and filled the air over the headland (Krohn 1991).

There can be little doubt that the physical demands of high winds, sandy beaches, and steep hillsides along the central Oregon Coast often affected the lighthouse families, but they in turn left reminders that the region itself was changed with the building of the lighthouse. Plants relocated from other parts of the country, in some instances from across the Atlantic, bloom on Yaquina Head. These include white clover, fox glove, pimpernel, English plantain, buckhorn plantain, heal-all, yellow mustard, oxeye daisy, English daisy, bitter-dock, and sea kale (Minor, Toepel, and Greenspan 1987, 5).

Many of the plants surviving on the headland have medicinal properties familiar to nineteenth-century remedies. Heal-all is the most impressive flower in the inventory. This plant is attributed with amazing health benefits. Charles F. Millspaugh's book, *American Medicinal Plants: An Illustrated and Descriptive Guide to Plants Indigenous to and Naturalized in the US* [sic] *Which Are Used in Medicine*, first printed in 1892, quotes Dr. Meeks, another physician of the day, about the medicinal potential of Heal-all:

[I]n the mountains of Virginia, Kentucky, Tennessee, and Carolina, this genus is considered as a panacea, and used outwardly and inwardly in many disorders; it is applied in poultice and was for bruises, sores, blows, falls, wounds, sprains, contusions, and taken like a tea for headaches, colics, cramps, dropsy, indigestions, etc. (Millspaugh 1974, 466)

Earlier in his book while discussing the uses of the herb under its synonym Self-Heal, Millspaugh picks up where Dr. Meeks leaves off:

This herb is said to serve as a soothing poultice to inflamed tumors, suppurating mammae, ulcers, burns, hemorrhoids, etc; it is also used alone

and as a component of salves, for itch, various eruptions, and "Scabs" in swine, as well as a tonic and deobstruent in hepatic and glandular disorders. (Millsbaugh 1974, 439-440)

Considering the vast and varied uses for this plant, there can be little wonder why it was brought to the station. In the nineteenth century herbs were often the best available treatment in remote locations. A few of the other plants listed above were also used for medical purposes: foxglove was taken for heart conditions; the plantains treated chronic constipation; heal-all could soothe sore throats (Harborne and Baxter 2001, 10-32). Pimpernel at one time was considered useful as an anti-epileptic and good for gout (Millsbaugh 1974, 424). It would seem that the lighthouse families did their best to take care of themselves, sometimes against serious illness.

The introduction of sea kale to the area was yet another piece of lore uncovered through Ann Martin's interviews. A plant grown only in England, Scotland, and on Yaquina Head, the kale is said to have been brought to the headland by one of the captains commanding a lighthouse supply ship (Krohn 1991). This mini-narrative provides the first connection of foodways and culture to the lives of the lighthouse families in the research conducted for this paper.

Although the exact year when the kale was brought to the station is unclear, there are keepers of record who might have been especially grateful for its arrival. Keeper Smith, whose wife is mentioned above, was from Scotland. Did he miss the flavor of home and welcome the kale as a reminder of his childhood or was there a lighthouse wife somewhere in the station's history who wished to recreate her mother's favorite dish but lacked the necessary ingredients? Either way, the introduction of sea kale to the headland met someone's needs.

In recent years there have been questions about whether or not the families assigned to the station were able to grow a garden on the headland. Although the soil is not as sandy as the grounds surrounding the Yaquina Bay Lighthouse, with high winds sweeping across the point throughout the year, the technical aspects of nurturing a plentiful garden seem impossible. Nonetheless, despite the imposition of the weather, if the ability to eat fresh food lies in the ability to grow it, then a way can often be found to prosper.

In an early photograph of the station, a large vegetable garden is centered in the foreground. A later photograph, though not sufficiently clear to prove the sectioned off area is a garden, nonetheless shows a conscientious effort to create a windbreak and protect whatever was contained within the enclosure. One of the premises of this paper is that in the battle to survive, control, or conquer contested space, humans will reach inside themselves for ingenuity and the determination to flourish in difficult circumstances. If growing fresh food on a windy headland was necessary to the well-being of the lighthouse families, then the homemakers and the keepers would have figured out how to do so, possibly even applying techniques the modern gardener has left behind or forgotten.

This interaction between humans and their environment shapes the regional identity of an area and indicates the changes people make on their physical world. Cultural dynamism is the transition of old cultures into conformity with new demands. Old recipes handed down through generations of family members become modified when required ingredients are not available. Long-standing techniques are set aside when they no longer apply to current needs. Long

established habits adapt to remain useful in changing circumstances and create a link between the older ways of living and the new. Fresh inventions create transition. Just as the sea kale and other plant life were introduced into the headland to provide continuity for the lighthouse families, other customs would have been brought in to ensure consistency in the lives of the people stationed at the light. On a national scale, part of the etiquette conveyed to the lighthouse structures reflects the larger cultural norms of the day.

Building plans for the keepers' quarters give little information about the layout of the rooms but do convey the Victorian conventions seen in the earlier lighthouse constructed at Newport. The original duplex constructed in 1872 was replaced in 1938. Although nothing tangible remains of these initial quarters, a few building plans still exist. These sheets of paper, along with external photographs of the station, provide some clues into the domestic space of the early Yaquina Head keepers and their families. Knowing that the duplex was a mirror-image, a little manipulation of the existing drawings provides some indication of room size and shape. Architectural conventions of the 1870s do not seem concerned with accurate scaling of a model, so estimates of size are just that, estimates. All surviving plans are side perspectives of the apartment rather than a top view indicating layout and room designation. Nevertheless, a reasonable degree of accuracy as to the original floor plan and use of the chambers can be determined through a combination of methods.

By taking for granted that the illustrations and proportional dimensions are roughly similar, educated speculation offers some evidence for the width and length

of the rooms. Window and door specifications also afford clues to wall placement and room definition. The middle-class predisposition towards cultural conventions of the 1870s can also be manipulated to contribute insights into the interpretations presented here. In an effort to minimize any confusion caused by discussing both sides of the duplex simultaneously, only one-half of the dwelling will be analyzed, believing that what holds true for the one side holds true for the other as well.

As in the previous chapter on the Bay station, the quarters supplied to the lighthouse families say a great deal about the tastes of the widespread culture of the day. Two-and-a-half stories high, the duplex stood on the headland as a complementary day marker to the taller, white tower beside it. Today all trace of the once dignified building is gone and wild flowers fill the area where the parlors, halls, and piazza once stood (see figure 12).

The front entrance of the quarters opened into a hallway running along the dividing wall between the apartments (see figure 13). The entry hall ended against the front wall of the kitchen. At least two doors opened off the hallway: one leading to the kitchen at the rear of the hall and one leading to a smaller room forward and to the side of the kitchen. A third door under the stairs lead to the basement. There was possibly a fourth door opening directly into the parlor towards the front of the house.

This fourth doorway is not indicated on the original building plans, but displaying a door in that location might have been problematic on a two-dimensional plane. A similar access to the parlor is included in the Yaquina Bay Lighthouse. The parlor door is not detailed on the floor plans for the Bay station



Figure 12. The Yaquina Head Lighthouse. The location of the original duplex and outbuildings.

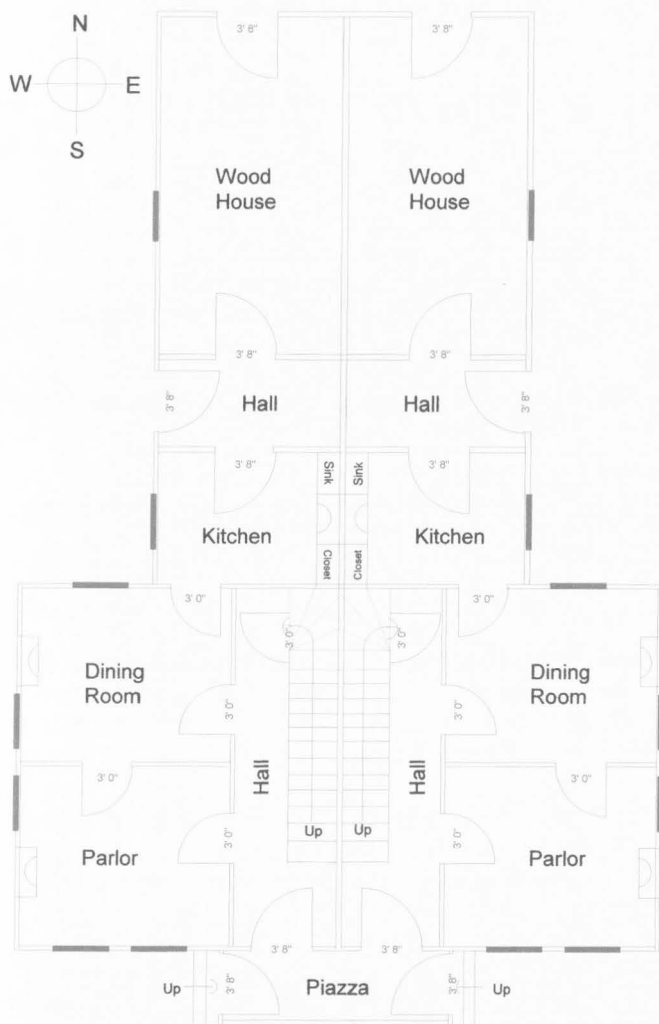


Figure 13. The Yaquina Head Lighthouse. A possible first floor layout for the original duplex built in 1871.

either. The same configuration for the Yaquina Head duplex seems likely since direct access from the hall to the parlor would have been convenient for the lighthouse families and typical of the social conventions of the 1870s.

Donald J. Berg, in his book about nineteenth century home design, points out that vernacular architecture was a common practice in the 1870s. Many families created their homes from plan books sold throughout the country (Berg 1997, 6). Personnel assigned to the station would have been familiar with the building trends of the day and the current trends in design. The U. S. Lighthouse Establishment itself used professional engineers in tune with the larger tastes of society when planning and constructing the beacons. Although the keepers appointed to the station did not determine what kind of house they lived in, the remaining photographs of their homes show their desire to follow the larger fashions of the day.

Photographic images taken prior to the turn of the twentieth century show lace or sheer curtains hanging in every window from the first floor to the attic. Although the sheer curtains look quaint and fanciful in retrospect, the fabric served a very real purpose for Victorian families:

Nineteenth-century Americans were sometimes disconcerted by the brightness of interior lights, natural and artificial. The abundant natural light entering through the enlarged windows was startling. Until the early nineteenth century there were no window curtains to speak of.... Then sheer white curtains—"glass curtains"—were hung like diaphanous gauze before the entire window and became the fashion.... Glass curtains were lauded as providing necessary privacy. Such was the reaction of people so long hidden behind walls that they suddenly felt exposed. In the second half of the century, layers of drapery and curtains were touted as necessary screens for harsh daylight.... More significant, they provided an opportunity to display textiles—now available, affordable, and still endowed with the aura of splendor. (Kaye 1998, 121-122)

On those clear days when the sun rested warm and bright over the station, the sunlight streaming through the windows must have needed the filter mentioned above. The second part of Kaye's statements, that the curtains were used to display affordable textiles, when applied to the lighthouse discussed here implies that Newport was not a backward settlement isolated from anterior commerce. The families who moved to the Pacific Northwest did so with the intent of building communities, which included bringing the details of their former homes with them. What they did not already have, they purchased at local markets or by mail.

The filmy curtains seen through the windows are just a small example of the material culture and home decoration so much a part of family life at the station. This subtle embellishment reveals the desire of the lighthouse families not only to tend the light but to create a sense of place as well. They arranged their homes to reflect the fashions of the larger department of the nation and did so in an environment where textiles may have been costly to obtain and rocks were often thrown through the windows by high winds. The softly flowing drapery seen in all the windows of the lighthouse quarters except Tillamook Rock indicate that even on the Pacific frontier fashion had its place.

A popular photograph of the lighthouse grounds dated around 1890 shows a group of well-dressed people talking in front of the duplex. It is not clear from the picture whether or not these are tourists interested in viewing the light or friends of the keepers come to call. Had the group arrived at the station by way of invitation from the keepers, the use of the parlor as a Victorian social point would have

afforded the lighthouse families a way to participate in the precise social rituals of the Victorian Age.

The layout of the family residences accompanies the sense of place created by the window coverings. Although floor plans picture a larger room in the forefront of the residence and a smaller room behind, several photographs of the duplex show a more symmetrical arrangement. Judging by the location of the windows, which were placed squarely in the center of the outer wall, either the floor plan was altered during construction or the drawings are not exact in their representation. If the front room was used as a parlor, then possibly the room behind it was the dining area. With the parlor in the foreground, the kitchen in the rear, and a dining room in between, the organization of the duplex adheres to the "formal in front, utility in the back" design discussed in the previous chapter.

Moving up through the duplex, the second floor presents the biggest challenge to understanding the living quarters of the lighthouse families. As mentioned before, the speculation of design and use of living space depends on walls implied on the floor plans and window placement. Although the stair railing running through the upper hall looks as though it leads partially back toward the front of the station where the rail is stopped by a front room, such an arrangement would block any natural light coming from the window well on the south wall. Without the sunlight from the window the hallway would have had a dusky appearance throughout much of the day. A more sensible design would have had the railing running towards the front of the residence with the room to the side. If this second approach was used, the limitations of a two-dimensional drawing would

cause the hall to appear small and unlighted when in reality the hall ran length of the building with natural light streaming through the window on the southern wall. Such an arrangement would have allowed for individual doors opening off the hallway into the sleeping chambers.

There are two possible floor designs for the second story, provided that the use of a single chamber running the length of the upper story is set aside as inconvenient and not in the best interests of the family. The first layout divides the side length of the floor in two with a third chamber over the kitchen (see figure 14).

This arrangement aligns the walls of the first and second story. However, the addition of an extra window on the side may indicate that the length of the floor was divided into thirds with a fourth chamber over the kitchen (see figure 15). This alternate design choice would align the walls of the second story with the attic dividers (see figure 16). The rooms in the five-room layout would be small but wide enough to fit a single bed, a window and a dresser in each. Without the original layout to review, it is difficult to determine if there was a larger master bedroom in the house.¹

The back chamber over the kitchen is the most intriguing. There appears to have been a door on the dividing wall in this room. After due consideration, a likely reason presented itself: access to the stairwell rising to the attic chamber (see figure 16). Although the back chamber is only about eight feet by eight feet, it would still have been a serviceable room if space were at a premium. Tucking the attic stairs into the back of the house would also have saved much needed in other areas of

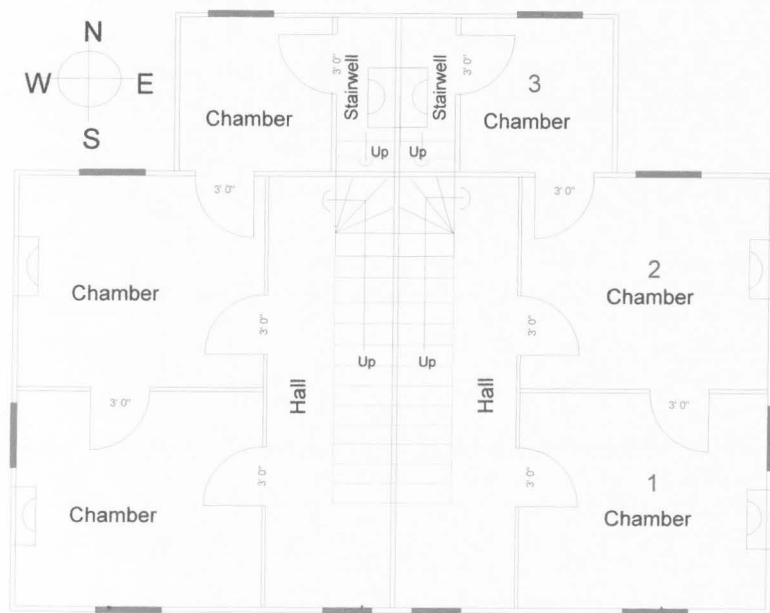


Figure 14. The second floor three-chamber layout. The walls align with those on the first floor of the apartments.

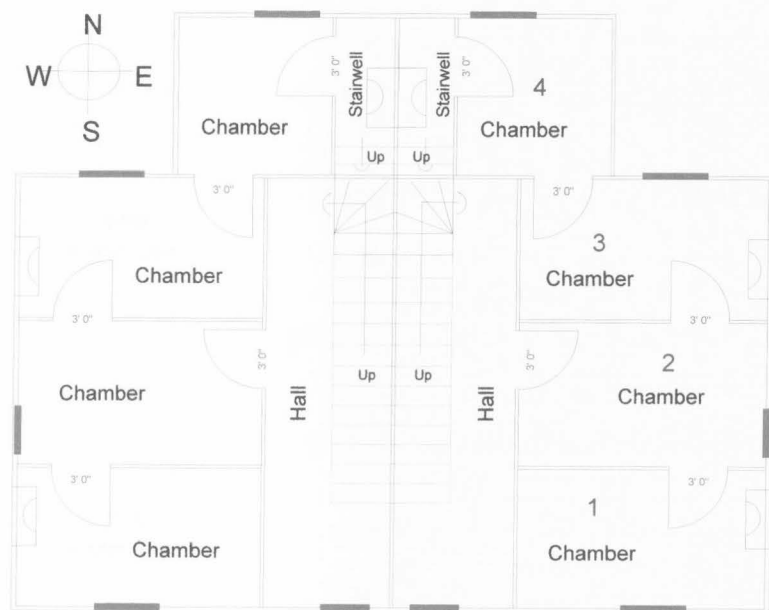


Figure 15. The second floor four-chamber layout. The walls align with the attic level of the apartments.



Figure 16. The back stairs leading from the second floor room over the kitchen to the attic room.

of the residence. Anyone mounting the attic stairs would find the hallway narrow until passing the kitchen flue, but beyond the chimney the stairway would widen to make ascending to the attic easier.

This unexpected hall passage would also account for the top windows at the rear of the duplex. Though small, the windows provided natural light for climbing the steps. The sheer curtains often seen through the glass would indicate that someone took the time to add some decoration to the upper story of the house, making the available attic space more than a vacant apartment. The upper chamber could have been used as a sleeping room, a utility room for drying clothes in bad weather, simple storage space, or a play area for the children when it rained. Because the apartments were not large, possibly eighteen feet wide and twenty-two feet long (excluding the kitchen), living space would have been at a premium. The attic and basement would have provided welcome space for homemakers determined to keep their home uncluttered and ready for inspection.

The basic design of the duplex, like the Bay Lighthouse before it, was reflective of the day. As mentioned before, the formal room was towards the front of the house, the utility room placed rearward. The separation of private and public space was maintained with the central hallway running through the house. As in the Bay Lighthouse, stepping into the hall from the outside allowed a strong first impression of the occupants and the home itself. Yet starting in 1899, service reports of the Lighthouse Board indicated that there were some inadequacies in the keeper's quarters:

Yaquina Head, Oregon.—The quarters furnished the three keepers are insufficient for their needs. These quarters can not [sic] be added to or altered

to meet the needs of the station. A new building is required. It is estimated that a suitable one can be erected for not exceeding \$4,000, and the Board recommends that an appropriation of that amount be made therefor [sic]. (U. S. L. H. E. 1899)

This report was subsequently forwarded for approximately twenty-three years before a second residence was built. One wonders if the new quarters would have been so long in coming had the Lighthouse Board, comfortably sleeping in their East Coast homes, spent a week on the headland. There were three, and occasionally four, keepers at the lighthouse, but only one duplex was constructed for living quarters. Since rank had its privileges, the head keeper and his or her family occupied one side of the duplex (usually the one closest to the lighthouse) while the first assistant keeper and his or her family occupied the other side. That left the second and third assistant keepers without adequate lodging.

While researching the living arrangements for Yaquina Head a story about the housing for the second assistant keeper surfaced. As the narrative has it, the temporary quarters originally erected for the lighthouse construction crew was later employed for the second assistant keeper. If true, these quarters would have been far from satisfactory. Intended to be temporary, they would have lacked the substance and stability of a pre-planned permanent structure. After twenty-eight years (1871 – 1899), the quarters would indeed have been insufficient for the needs of the keepers. Another 23-year-wait would not have improved them any.²

In an occupation that depended on the purity of the light to guide ships, the Lighthouse Board was primarily concerned with the light tower. There were times when the living arrangements provided to the keepers were sufficient for the family's needs; there were other times when the housing was wholly inadequate. In

this regard, the Board held all the power. In terms of contested space, political hierarchy once again prevailed over the needs of the powerless. The keepers had to make do with what was available. Sometimes they were warm and dry. Sometimes they were cramped and uncomfortable.

Within the analysis of the Yaquina Head Lighthouse, contested space took on the larger physical aspects of geography during the sentinel's construction. The offloading and transportation of supplies to the station only increased the problems of maintaining the light. The smaller points of weather, wind, and domestic obstacles affected the lighthouse families on a personal level. Yet within these challenges, the personnel assigned to the light found ways to retain the older tastes and customs of their families through the plants that were introduced onto the headland and the larger traditions of a national ideal. Finally, the domestic framework of the duplex and second assistant quarters exemplified the empowered infrastructure that could at one time be open to the wishes of the keepers and at other times remain aloof from any responsibility of caring for the light-tenders.

The physical battle between nature and humanity continues to deepen as the examination of lighthouse life and contested space moves to the next station. The rocky shoreline around the headland increased the hazards of landing construction materials on the point. Yet in the analysis of the Tillamook Rock Lighthouse, the struggles of the Yaquina Head keepers will seem small in comparison. In the battle between an angry sea and the men who were sent to subdue the rock, the obstacles of the contested environment surrounding a seacoast sentinel escalate to include the loss of life and complete destruction of buildings.

With the unexpected death of Mr. Trevawas during an attempt to access Tillamook Rock, the off-shore beacon became one of the most demanding duty stations along the Oregon Coast.

End Notes

¹ During a follow-up visit to the Yaquina Head Lighthouse in December of 2002, a clue to the duplex floor plan unexpectedly surfaced. On a photocopy of notes for guests and guides, the Bureau of Land Management notes that each unit of the duplex contained five chambers and 1,100 square feet of living space. No reference is given for the origin of the data so tracing the information back to an official source was impossible with the given time constraints, but the indication that there were five chambers supports the conclusions drawn above that the window in the center of the wall may indeed indicate three rooms along the length of the side.

² The oldest photograph of Yaquina Head discovered late in the research process shows few outbuildings associated with the lighthouse. Although no date is associated with the photo, the lack of outbuildings places the picture at a very early time in the station's history. More importantly, the temporary building speculated to have housed the construction crews, and later the second assistant keeper, is missing from the area behind the duplex. It is possible that the temporary shelter was moved from its original location to the yard behind the main house after the picture was taken, but no evidence of such a move exists in this photograph.

CHAPTER V

NOTHING NEW ON THE ROCK. ALL WELL

Tillamook Rock Lighthouse stood on the front edge of humanity's conflict with the north Pacific. Little more than a mile out from the mainland, this solitary beacon marked the turbulent water twenty miles south of the Columbia River. "Terrible Tilly," as the station became known, is 112 miles beyond the Yaquina Headland and the furthest north of the lighthouses under discussion here. Rising out of a turbulent marine environment, Tillamook Rock tested the determination of the Lighthouse Board and the various work crews sent to mark the area with a lighthouse. Construction of the beacon was an engineering achievement rivaled by only a few of the nation's lights. The station was assembled under difficult conditions, and under difficult circumstances the lantern was tended.

Commissioned in January of 1881, the sentinel was manned by five keepers who, secluded on the isolated outcrop, often battled loneliness, boredom, and a sea that periodically tried to wipe the lighthouse from its basaltic foundation. Since the beacon was considered too remote and austere a location for family life, the lighthouse was designated a "stag" station from inception.

On a clear day the waters surrounding the Tillamook Light continue to roil with agitation. No beach area borders the rock; no cove offers shelter to a lighter or dory; no gently sloping sides offer docking potential. Initially, gaining access to the rock was achieved by jumping from boat to shore and grabbing onto a safety line. The first effort to survey the rock in preparation for constructing the lighthouse was delayed for several weeks by weather. When the first opportunity to reach the site

presented itself, one man made it safely ashore, the turbulence of the

encroaching sea made it impossible to pass his instruments over to him. Mr.

Wheeler, superintendent of the lighthouse building project, made do with a tape

measure carried in his pocket. His report for 30 June 1879 reads in part:

[This is] an isolated basaltic rock divided about low-water level into two very unequal parts by a wide fissure with vertical sides running east and west, stands 100 feet approx. above the sea and has a crest which is capable of being reduced so as to accommodate a structure not greater than fifty feet square..... Though the execution of the work will be a task of labor and difficulty, accompanied with great expense, yet the benefits [that] commerce seeking the mouth of the Columbia River will derive from a light and fog signal located there will warrant all the labor and expense involved. (Webber and Webber 1992, 18)

In the years following this dubious beginning, the relationship between humanity and the sea surrounding the rock made little improvement.

Mr. Wheeler knew how great the undertaking to construct a lighthouse on so inhospitable a foundation would be. Regardless of the effort required, Wheeler also understood why the station was important. This awareness of both danger and need is what sparked any decision to light an area, no matter how difficult the task. The human determination to confront a contested environment and overcome the liability inherent in such locations is the essence of why the U. S. L. H. E. sought to ameliorate the tempestuous waters near the rock. Whenever a beacon was truly needed, the lighthouse governing board did not abandon the mariners to face the unlighted hazard alone.

Accessing the lighthouse was easier once a transport line had been set up. With the cable firmly in place, transferring crew and visitors alike was accomplished with the use of a breeches buoy—a pair of canvas pants attached to a life preserver

and a cable (still in use when the station closed in 1957). One end of the cable was attached to the rock, the other end to the ship. As long as the cable remained taut, the transport was smooth and dry. However, if the seas were in motion (as was usually the case) and the boat was caught on a swell, the cable picked up slack. The unlucky crewman caught mid-transfer found himself first dunked into the frigid Pacific then shot straight up in the air as the boat rolled back and the cable was once again pulled tight. Transportation by breeches buoy was not a crossing for the faint of heart, but it was the only way to get on or off the station.

Supplies were moved with the use of a derrick located on a lower level near the oil house on the east side of the station. Cargo ranged from fuel for the lantern to mail for the keepers and arrived whenever needed and weather allowed. Stairs lead from the loading area up to the summit where the lighthouse stood.

The layout of the station designated four rooms for the keepers and one room as a spare (see figure 17). Since there were five keepers assigned to the lighthouse, this particular floor plan seems inadequate. The keepers were responsible to provide a room for the inspector whenever he visited the station, yet setting aside a whole room in a space already so limited seems impractical. Either the keepers rotated through the other four rooms as they pulled their duty assignments or the spare room was given over to the fifth keeper and vacated when the inspector arrived.

Separated from the mainland, the men stationed at the lighthouse depended on the tenders to replenish supplies. If a heavy sea was running near the rock, these supply ships were often delayed, occasionally for weeks at a time. Rough weather

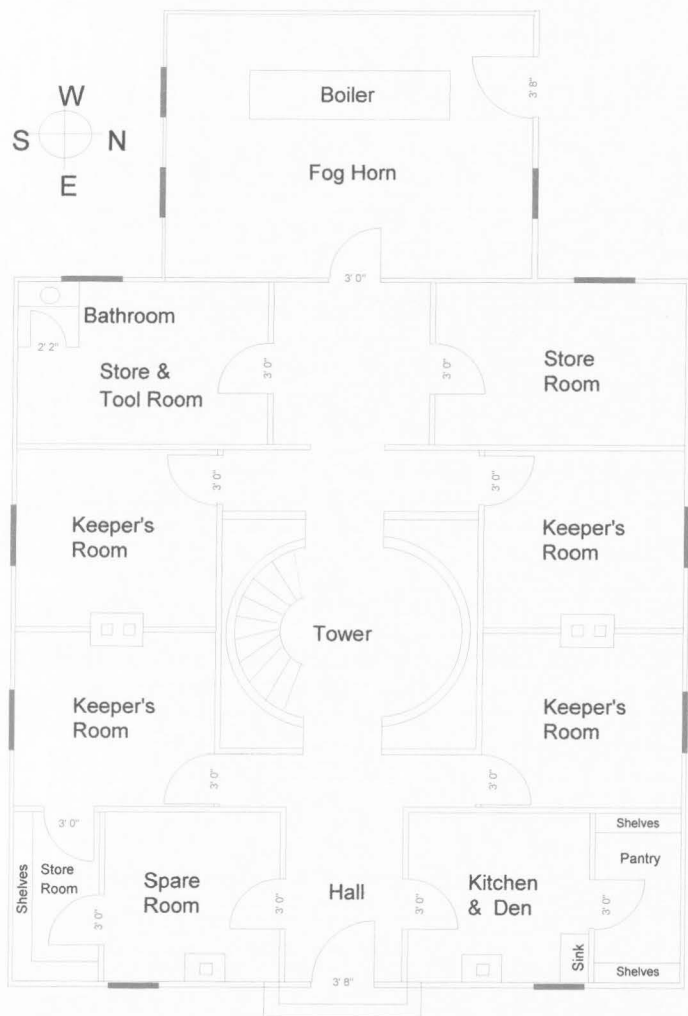


Figure 17. The layout of the living space in Tillamook Rock Lighthouse. Adapted from Webber 1992, 46.

made nearing the station unusually dangerous and transport between ship and rock impossible. However, food and water do not seem to be of much concern for the light keepers. More often than not, if discontent made its way into the station logs, it centered around the mail. Being disconnected from all news, the mail became a vital part of life for the keepers, the absence of which often made it into the daily log entries for the station:

Blowing fresh from S. W. cloudy with Rain Squals [sic]. Tug Boat in command of Capt Staple visited the Rock could not land on account of Heavy Sea Everybody disappointed, as we are anxious to hear from Shore. Should be some arrangement to get the Mail whenever the Steamer comes. Can be done by the Captains notifying our Friends or by Publishing in The Astorian as the men on the Rock can bear the expense. (12 May 1881; capitalization and punctuation taken from the log)

The statement "bear the expense" must refer to the cost of advertising in the local paper. Not knowing whom to contact, a steamer captain could best reach the family and friends of the keepers by advertising the date of his next trip and waiting for people to contact him with letters for the station. The idea is an ingenious way to collect mail.

Later that same summer, the subject of mail resurfaced in the station log:

Lantern Watch last night Stark 1st Jones 2nd Cloudy Night Light N. W. Breeze to day Cloudy & damp no vessels in sight to day expected a boat from Town but none came anxious for one to come & bring mail & the 3rd Asst. (19 August 1881; capitalization and punctuation taken from the log)

Several days later, the problem still existed, "[A]ll hands well but anxiously looking for the Boat with Mail" (26 August 1881; capitalization and punctuation taken from the log). With this distress about communication from home, the nature of contested space once again shifted from the larger issues of the lantern to the more immediate aspects of the keepers' personal lives as the restrictions of the

surrounding physical environment created frustration in the daily lives of the lighthouse personnel.

In the log entry for August 19, someone not only wanted the mail but seems to be anxious for a duty shift as well. The constant unpredictability of the local seas caused a "this is the duty schedule and we stick to it" approach to work assignments. With five men stationed at the lighthouse, one or two were always on rotation (six weeks on, three weeks off). If weather did not allow the transport vessel to reach the rock on the appointed day, the keeper's leave still went into effect. If the weather remained inconstant for a week, the waiting keeper lost a week of shore leave. The off-duty personnel still detained on the rock must have longed for good weather as they watched their anticipated leave swallowed up in rough seas:

Blowing Heavy from N. W. no Vessels in Sight to day [sic]. Finished painting outside of Building Sky clear all hands in good health & Spirits but some anxious to Visit Shore. (16 May 1881; capitalization and punctuation taken from the log)

Even when the work at the lighthouse appealed to the keepers, as implied in the good spirits mentioned in the log, a respite from the challenges of life at the station weighed on the minds of those ready a break. After walking around the lighthouse for several weeks, a change in venue may have been a very welcome prospect for the waiting keepers.

The upper level of Tillamook rock is only slightly bigger than the lighthouse it supports. Bert Webber in his history of the sentinel points out that the only open space around the station proper was an 8-foot walkway on all four sides of the building (Webber and Webber 1992 12). Any outdoor physical exercise or recreation was confined to the limitations of a base scarcely larger than the sentinel itself.

Because the lower level of the rock is uneven, craggy, and dangerous in heavy seas, the lightkeepers passed their duty time in a very defined environment.

On an interpersonal level, whenever the keepers experienced moments of frustration, they did not have the option of leaving the station or escaping the cause of their frustration to calm down. The nature of contested space turned inward in such limited circumstances. Under these conditions the depression mentioned in the following log entry is not wholly unexpected:

Cloudy Night. Fresh Breeze to day [sic] from S. E. Cloudy & damp Saw no vessels Nothing new of the Rock all well *I notice that this complete Isolation is having a depressing Tendency upon the minds of all.* (6 [February] [1881] ; capitalization and punctuation taken from the log, emphasis added)

Although the keepers were physically well, the demands of their location sometimes took a toll on their emotions. Contested space is not confined to only the physical realities. The isolation and fog surrounding lighthouse duty often placed an emotional strain on spouses and keepers alike.

The second part of the above log item highlights another frustration brought on by the keepers' separation from shore:

Besides we are out of Vegetables & Everything Except Straight meat, Flour[,] Beans & rice. (6 [February] [1881] ; capitalization and punctuation taken from the log)

Maslow's hierarchy of needs places food, shelter, and clothing as the foundation of all other needs. If these basic requirements are not met, discontent settles in. The keeper's comment that they were out of "Everything Except Straight meat, Flour[,] Beans & rice" implies a real lack, but outside of the missing vegetables, and possibly dairy products, what else in the way of food is left? Flour would supply bread, rice and beans can be combined with meat to make casseroles. Yet there is something

about fresh vegetables that the keeper missed or craved. His comments may have had more to do with the attributes associated with the foods themselves rather than with any hunger on his part.

In some ways vegetables represent life. They are perishable, fragile, and temporary. In 1881 perishable foods were available only during certain growing seasons. Vegetables provide psychological as well as physiological benefits. By their nature they offer a wide variety of tastes and textures. They are fresh, crisp, snappy, sweet, bitter, and sour. They can be eaten hot or cold, as side or main dishes. They smell earthy, healthy, comforting, and strong. They are also a part of many favorite holiday recipes. If canned, vegetables carry the mark of whoever did the work (i.e., peeled, sliced, cooked, labeled, etc). So the absence of canned vegetables would be similar to missing a part of home. From this perspective, the lack of vegetables mentioned above has a bigger significance than mere food or hunger. Their absence suggests a part of life is missing. This lack was so compelling that some of Tilly's keepers tried to compensate for the loss by growing their own food, no matter how formidable a task.

A garden on such a sea-swept and windy location would have been quite a challenge. How would the topsoil stay rooted to the rock? How would seeds survive the waves crashing over the station or the strong breezes? Yet even with these difficulties, some of the lightkeepers needed to see life coming out of the ground. Later log entries confirm the earlier keeper's appreciation of vegetables, "[F]ixed upon garden and planted radish and lettuce seeds" (4 May 1890). The following

month the keeper took care to protect his new crop, "[M]aking garden fence and drilling for telegraph cable" (2 June 1890, emphasis added).

No photographs show where the garden fence mentioned above could have been. No known records shed light on how the vegetables survived the storms. No insights were found in the research to know how the garden was protected against the wind. The log entries provide little information, but the known accounts do confirm the keepers' resolve to maintain some semblance of rural life no matter how complex the venture.

The same determination to have fresh vegetables that existed with Tilly's personnel had its counterparts in other remote lighthouse locations. F. Ross Holland, talks about this need to watch something grow:

Man may have evolved from sea creatures and the sea may exert an instinctual pull on him, but man, having been out of the sea a long time, has just as strong a feeling about land, and when he goes to sea he feels the pull of the shore and usually wants to see something grow, especially plants. There are a number of inhospitable places for growing plants, but none quite as bad as Mount Desert Rock, Saddleback Ledge, or Boon Island. At all three places the keepers have tried to grow things, despite the fact that none of the sites possesses soil. At Saddleback Ledge the keeper had a few pea vines, hills of potatoes, and sprigs of oats growing in his trash, and he nursed them tenderly. On Mount Desert Rock and Boon Island the keepers hauled dirt from the mainland to their homes in barrels and boxes just to have small gardens in which they could grow flowers. And they did their work knowing full well that the first good storm would sweep the island and probably carry everything away, including the soil. But for a while, at least, they could watch things grow. (Holland 1988, 48)

The formidable task of growing flowers or vegetables in an environment more likely to destroy the plants with the first storm of the season appears to be of little consequence when placed against the results. The keepers of Tillamook Rock, like their fellow keepers elsewhere, must have succeeded, though there is little way of

knowing how or how well because their actions went unrecorded in the available station logs.

According to Holland, this connection to watching something grow is as basic a human need as staying warm and breathing fresh air. Certainly the persistence of the Tillamook keepers manifests the importance of fresh vegetables to station personnel. Contested environments do not extinguish the purposes of people who live in such severe spaces; they only make the accomplishment of the goals harder to achieve and more appreciated once successful, as the garden on Tillamook Rock proves.

Although flowers and vegetables are temporary by composition, the durability of the Tillamook Lighthouse is demonstrated by its remaining stability. By all appearances, the main structure remains sound. Although the lighthouse was considered one of the amazing engineering feats of its day, station life remained problematic for those who lived through the storms that rushed the rock:

Stormy Night Gale from the S. W. the heaviest we have had since my being on the Rock the Building Completely Flooded inside & out there might as well be no windows as the ones there is in the Building they fit so badly bothe [sic] the Sashes & Iron Shutters that the most of our time is Taken up Trying to Keep the Water out. We have had no fires to day [sic] as the chimneys draw the wrong way.... (9 [Febru]ary [1881]; capitalization and punctuation taken from the log)

The early summer months did not seem to be any drier:

Breeze to day [sic] with Heavy Mist from 1:20 AM untill [sic] 10 AM. The inside of the building very damp one barkentine [sic] passed north. All well. (26 June 1881; capitalization and punctuation taken from the log)

A penetrating dampness can increase the value of a good sweater in any season, but even warm clothes would be a small defense in the situation described above. With

the many times that the sea broached the rock and shattered windows, water inside the station was a part of the regular duty. The physical discomfort experienced by the men during hurricanes, gales, and tempests supports the Lighthouse Board's original assessment that the demands placed on Tilly's keepers made assignment to the rock too rough for families. Yet for personnel tending the stations, the seasonal storms were a large part of the work as well as the lifestyle.

During one three-day storm, the keepers tried to save the station's equipment but were thwarted by the strength of an angry sea:

Blowing a heavy Gale from S. E. Very heavy Sea from S. W. all hands been trying (with Bowlines around us) to Save our Swinging Boat landing have got it well chained but am afraid the Sea will break it to pieces Saw no vessels to day [sic] All hands in good Spirits. (27 October 1881; capitalization and punctuation taken from the log)

The storm continued its fury the next day:

Sea making a clean breach over the Rock & House. Reaching as high as the first Gallery. Smashed & carried away the Boat Launching during the night. the Platform around the Derrick went about 10 am to day [sic] Together with the Spar for swinging the Derrick & the End is not yet All well. (28 October 1881; capitalization and punctuation taken from the log)

The third day saw the squall still bearing down on the station with fierce winds:

Still blowing heavy from S. S. W. with so much Sea that is impossible to go to the lower part of the Rock to repair damages hope for better weather tomorrow... (29 October 1881; capitalization and punctuation taken from the log)

The physical territory around the lighthouse was so contested that the battle between humans and the sea continued without surprise. This steady confrontation says a great deal about the human ability to adapt to difficult environments. The perpetual battle with nature to keep the lantern lighted, no matter how often the

sea threw rocks and waves at the beacon, speaks well of the human resolve to stand firm against tremendous adversity.

Several newspaper articles highlight the distress of the keepers when the sea flooded the lighthouse. In each of these reports, the keepers are characterized as brave men who stood up to the demands placed on them by their work. In an article from *The Oregonian* with the heading, "Seas Strike Lighthouse," the inspector of the 17th Lighthouse District is quoted, "Reports that the lighthouse force there suffered from [a] lack of provisions is not the case," said Commander Ellicott. "I found that they had no complaint on that score and were as satisfied as ever with their lot" (17 January 1911). Apparently, although "One panel [was] gone from the iron railing around the rock and a window broken in the lower hallway," both of which were caused by the "monstrous wave that swept [the] Rock," the only concern rumored about was whether or not there was enough food at the station rather than any question of the keepers' physical safety or courage.

In a second *Oregonian* article, "Sea Breaks Glass on 132-Foot Tower," the extent to which the station was periodically drenched again comes through:

Torrents of water thrown to a height of more than 130 feet above the average high tide broke two panes of heavy plate glass in the lantern. . .for a period of 14 ½ hours the men of the light experienced the terrific onslaught from the sea.... Keeper Dalgren wrote that more water poured over the rock and into the lantern than at any time during the 12 years he has been at the station. The roof of the siren station leaked like a sieve, yet when the storm abated not a crack or crevice could be found in it. (9 December 1913)

The amazing durability of the lighthouse is again attested to by its enduring nature. The courage of the keepers is equally majestic.

Luckily for the keepers, the only casualties at the station were usually

structural. In 1934, the first order Fresnel lens that had shaped the light's beam for several decades was shattered during a gale that submerged the station several times in its fury. The beautiful glass lens that had survived so many storms was beyond repair and replaced with an aerobeacon, which remained in operation until the station was decommissioned in 1957.

As often as the weather made it into the nearby newspapers and official log books, life-threatening storms were not the only weather patterns passing over the lighthouse. There were also days when the keepers received some respite from the threatening arms of the winter gales. Seasonal storms were a dramatic consequence of station life, but there were intervals when the tempests were still, the weather beautiful, and the days peaceful:

Light Southerly Breeze to day [sic] the Warmest day we have had Summer the right Kind of weather for this Isolated place.... (25 August 1881; capitalization and punctuation taken from the log)

It would be interesting to know if the keepers enjoyed the calm, mild weather more than the storms or the challenge of a gale over the monotony of quiet solitude. No records at hand indicate an answer.

In good weather, the keepers were not always alone in their duty. Visitors infrequently arrived on the rock, and although access to the lighthouse was a challenge, not everyone who called at the station did so because they had business there:

Tug Boat Astoria Visited the Rock to Day [sic] with Supplies for engineers also bringing four Visitors. Two of them being Ladies. Being (as far as Known) the first White women to set foot on the Rock showed them Everything of Interest. (21 June 1881; capitalization and punctuation taken from the log)

One wonders how these ladies made it ashore? Did they cross by breeches buoy or in the iron cage (basket) used for supplies? If they wore the long dresses and big hats popular in 1881, transportation onto the rock must have been quite an adventure for them. No names are given in the station log. Possibly the ship had a passenger manifest, but the name of the vessel is also absent from the entry. Tracking down the names of these visitors would take a considerable amount of research, if it could be done at all. Still, it would be interesting to read the women's own accounts, if they left any.

The two ladies mentioned above were not the only women to visit the lighthouse. A few years later there were others, "[S]ix ladies visited the rock and spent a happy time here" (11 July 1893). Again, no mention is made in the summary of the log about who these ladies were or why they visited the rock. There is just enough information to spark curiosity but not enough to form any conclusions without extensive digging into the ship records—if the name of the ship could be found; that, too, is missing from the entry. Impromptu tours were a part of any keeper's life, but rare indeed must visitors have been to Tillamook Rock—especially women. More common breaks in the keepers' routines came from acts of nature played out at the base of the sentinel.

Although there are many instances when a beacon's interaction with nature plays itself out in contested space, there are also moments in a lightkeeper's life when humans and nature live in harmony. The remote location, the keepers' focus on the night and early morning hours, as well as the time spent watching the weather and the sea, provided lighthouse personnel unique opportunities to witness

events in nature not necessarily tied to the water. Throughout their nightly vigil, nature granted occasions for the keepers to make unexpected discoveries. Alone on a clear evening, the skies were open to their view, "All hand[s] well & at work Peterson on 1st Watch reported a Comet 1 point to the west of North" (22 June 1881; capitalization and punctuation taken from the log). During the day other natural wonders unfolded, "[T]his morning a sea lion cow gave birth of young" (1 July 1887); "[T]he swallows started to set on the 4th of July and hatched on the 18th" (18 July 1891); "[T]he young swallow had her first fly today" (8 August 1891). For any keeper interested in following the cycle of life in nature, lighthouse duty provided a variety of animals to study.

Off-duty personnel often had time on their hands to pursue their own interests. An occasional indoor hobby made it into the station's journals, "Painted small articles, made horses for stages" (5 May 1893). Confined to the station as the men were, a keeper was better served if he knew how to entertain himself. With rotating duty schedules, the lighthouse personnel often had time to practice new and old skills, work on hobbies, or read. The U. S. L. H. E. provided a traveling library for all the lighthouses (see figure 18). F. Ross Holland discusses the intent behind the collections:

Recognizing the loneliness of many of the light stations, and the fact that keepers engaged in "monotonous routine duties," the Lighthouse Board in 1876 began distributing small libraries to isolated light stations. These libraries consisted of about forty books which were enclosed in a case that folded open to display their contents. Each library was different, for the board envisioned transferring the boxes among the lighthouse, at first leaving a library at each station for about six months.... (Holland 1988, 50)

The libraries, Holland continues, contained a variety of genres (both fiction and

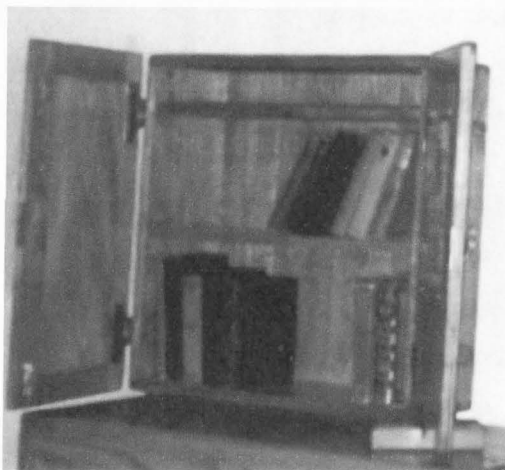


Figure 18. The traveling library. The initials of the U. S. Lighthouse Establishment are stamped on the front.

nonfiction), and were often updated either by purchase or donation. The board asked that each book be checked out. In this way they could track which ones the keepers enjoyed and which ones became obsolete. When a book lost the keepers' interest, the volume was replaced and perhaps given to a keeper who found particular enjoyment in it (Holland 1988, 50). The libraries were usually exchanged during quarterly inspections.

Regardless of the isolation, weather, or challenge, Tillamook Rock Lighthouse continued in its attempt to mark the shipping lanes leading to the mouth of the Columbia River. As with the other sentinels in this paper, life at the Tillamook Rock Lighthouse demonstrates the larger physical battle between humanity and the sea. Then, because the personnel assigned to maintain the lantern react with their environment, the nature of contested space shifts once again into the personal lives of the keepers and how they were affected by their assignment in a contested environment. Although there were keepers who enjoyed their duty on Tillamook Rock, the location was not an easy one. In this respect, "Tilly" is the antithesis of the last lighthouse under analysis, Heceta Head.

Where the Tillamook Rock Lighthouse was a study of nature's fury and humanity's determination, Heceta Head, one of the most beautiful lighthouses on the Oregon Coast, is almost idyllic in its apparent tranquility. Like Tillamook Rock, Heceta Head was isolated from nearby communities. Unlike the Rock, the Heceta light was settled on a high cliff where strong winds might wash across the station, but the resulting waves remained safely confined to the beach and cove below the lighthouse reservation.

CHAPTER VI

OH, MY, WHAT A PRETTY PLACE!

The youngest of the lighthouses in this analysis, the Heceta Head station was completed in 1894. Forty-eight miles south of Newport and roughly 155 miles north of the Oregon/California border, Heceta marks the southern tip of the central coast region. Nestled against an emerald hillside, the Heceta Head Lighthouse is one of the most photographed light stations in the United States. The beacon's history began in the late 1880s when an unbroken line of darkness was discovered along the Oregon coastline. To facilitate the growing number of ships plying the Oregon shore, the Lighthouse Board set about breaking the black sector with a first-order beacon.

In the early 1890s, the hillside behind the station was barren of the tall trees that grow so thickly today. An early survey of the lighthouse reservation describes the surrounding area as being covered in dense forest, a woodland that required far too much expense to clear manually. However, by the time the actual building of the beacon began, a fire had cleared the land and prepared the way for construction. Norman Larsen, during an interview for the *Passport in Time* project conducted in 1995, explained that sheep from the neighboring homestead helped hold the dense growth around the lighthouse at bay (Larsen 1997) after this initial burn. Without the natural check of the sheep, the spruce trees have once again covered the landscape and created an atmosphere of charm and beauty that calls to the artistic eyes of many photographers traveling along the scenic Oregon Coast.

The Heceta Head station, unlike the other lighthouses under discussion in this analysis, was spread out over some distance. Whereas the Tillamook Rock

Lighthouse completely covered the upper rock shelf upon which it was built, the tower for the Heceta Head Lighthouse was constructed above and away from the keepers' quarters with a cement road running between the two. The outbuildings associated with the station were located on the second level with the main living quarters. These buildings included a chicken coop and a barn, with a fence around the two for sheltering livestock. Today this area is covered in heavy brush without a sign of the domestic activity that once rested on the side of the hill. A flat open beach lies below the family dwellings (see figure 19). The vegetable gardens were located below the housing complex on the beach above the water line. Children who lived at the lighthouse during the 1930s remember the big gardens near the water maintained by some of the keepers. If other garden areas existed, they are not within the recollections of those still living.

Having the beach so near the station was a great asset to lighthouse personnel. Tenders bringing supplies to the lighthouse anchored just beyond the breakers then launched a lighter to carry goods onto the sand. During construction of the station, if inclement weather did not allow a safe transportation of building materials, lumber was lashed together, then tossed overboard to be carried onto the shore with the tide. From the beach, goods were loaded onto a buckboard and conveyed along a wagon road cut into the side of the hill. Though the original course climbing up the hillside to the lighthouse quarters was lost for a time, either through unchecked overgrowth or lack of use, in recent years Lloyd Collett rediscovered the road during restoration of Heceta House and uncovered the path to reinstate a piece of history (Collett 1997). This narrow lane, initially used to transport materials and

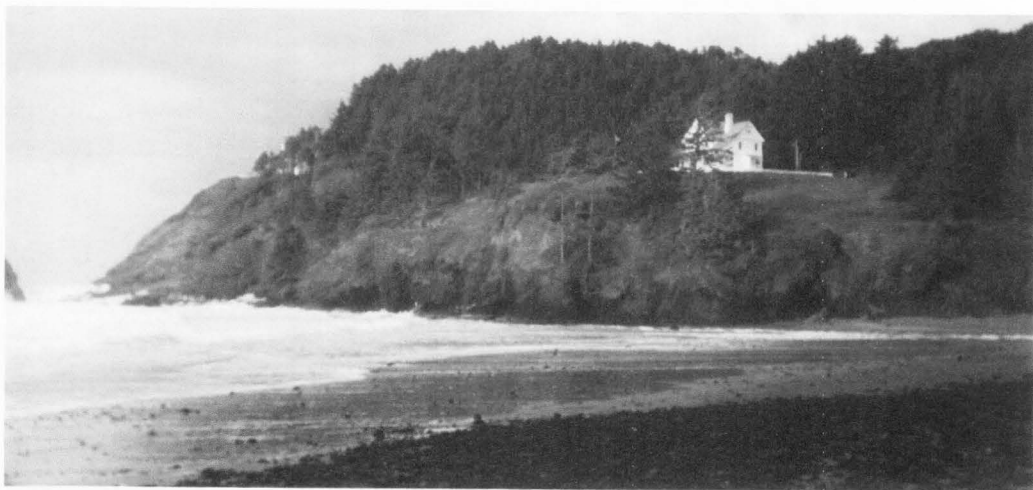


Figure 19. The Heceta Head Lighthouse. The tower sits on the point while the living quarters were placed further inland. The beach in the foreground is where supplies for the lighthouse were off-loaded. The wagon road that climbs the facing hill is hidden by the angle of elevation and the trees.

supplies, is now the trail vacationers and visitors take to reach the second level of the station.

The regrowth of the spruce trees so abundant in the area overhangs the path and dims the sunshine filtering through the leaves, but the roadway itself remains clear (see figure 20). Although the path hardly seems wide enough for a lumbering wagon to travel, people walking along the winding route may well hear the echo of a thriving community whispering through the moss and the shadows that witnessed the steady movement of people and wagons from the beach to the lighthouse in the early days of the station. Today the road ends at the southwest corner of the living area. Visitors step out of the tress to face a verdant lawn and a quaint white house.

The layout of the keepers' quarters at Heceta Head reflects the changes in cultural preferences and fashion which occurred after constructions of the Yaquina Bay and Yaquina Head Lights. Although the original Head Keeper's residence was dismantled around 1939, through great effort the duplex for the first and second assistants has been historically renovated and remains, for the most part, intact (the mud rooms originally attached to the back of the duplex were removed during an earlier remodel and no longer exist).

Redrawings of the original floor plans indicate that the Head Keeper's house was a single-family dwelling with a layout similar to that of one side of the mirror-image duplex (see figure 21). The central hallway and long stairway so prevalent in the earlier Victorian homes are missing from the Heceta quarters. Instead, the passageway leading into the interior of the home, is short and ends quickly at the kitchen. The stairs move off from the hall and turn during their climb to the second

(A)



(B)



(C)



Figure 20. The wagon road leading from the beach below Heceta Lighthouse up to the remaining keepers quarters. (A) The first part of the road. (B) Leading into the first turn. (C) Moving into the open for the final part of the ascent.

(A)

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Figure 21. Heceta Head Lighthouse. Room layout for the head keeper's residence. (A) First Floor (B) Second Floor. Adapted from plans by Don Peting.

(B)

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floor. A visitor's first exposure to the nucleus of the home is no longer a matter of stepping into a corridor intended to make an impression on guests but is accessed only after passing through a vestibule separating the outside of the house from the interior.

The enclosed entry room would have been a great asset to the homemakers of Heceta Head. With winter storms often coming from the southern front portion of the quarters, the opportunity to shut the weather outside while changing boots, coats, and hats before entering the house proper may have helped to lessen some of the debris carried inside by the winds. Rain, mud, and sand could be shaken off in the serviceable chamber before stepping into the heart of the home. These vestibules were placed at every outside entrance of the keepers quarters. The arrangement seems very practical for such a stormy climate but was a new addition to the lighthouse structures.

Another change to the living quarters was the veranda running across the front of the house and around to the side. None of the previously discussed lighthouses had such a sweeping porch. Yaquina Head had an open piazza, but the entry covering was neither large nor was it designed for sitting. Heceta Head is the first of the central coast beacons to have an extensive deck that was both graceful in design and serviceable in space. There was enough room on the veranda for quite a few chairs, a table, and several people. With a depth of six to eight feet and a width of thirty-four feet, the front porch provided a good place to entertain guests or relax at the end of an evening.

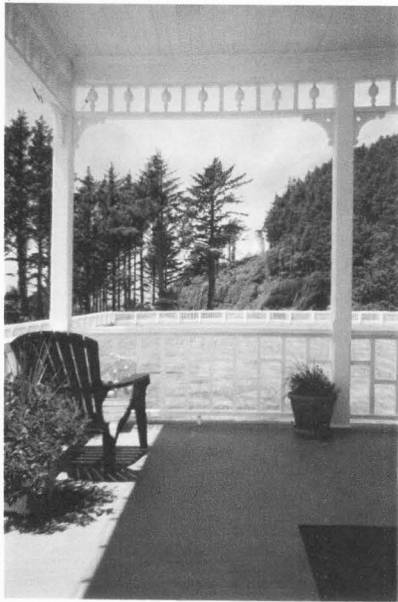
Like the earlier dwellings, the entire organization of the keeper's house, both inside and out, is one of symmetry and balance (see figure 22). Although the head keeper's residence no longer stands, the beauty of the building lines can be seen in the remaining duplex. A side view of the apartments evinces the imbalance created by the missing mud house/wood shed, but a little imagination can supply the absent building and picture an evenly proportioned outline to the structure. The same balance is crafted into the front of the building as well with one half of the duplex complementing the other half. From the architectural plans, it appears that the head keeper's dwelling was designed with the same precision.

The advancement in industrialized products made machine carved wood inexpensive, readily available, and easy to incorporate into new buildings. The Lighthouse Board included this new fashion in the Heceta Head station thereby once again overlaying national building trends onto the lighthouse buildings. The exterior trim of the duplex carries the ornate look popular in the latter part of the nineteenth century, and the interior has carved molding throughout the lower rooms. Colored glass windows, carved molding, and tiled fireplaces give charm and elegance to the old house.

Inside the homes, the living space is compact but serviceable. Hall closets and steps leading to the basement are tucked under the stairs. The sitting room remains in the forefront of the house with the dining room placed behind. The kitchen is in the back of the house at the end of the entry hall and to the side of the dining room. Sliding double doors separate the parlor from the dining area.

As pretty as the place is, there is some question as to how functional the

(A)



(B)



Figure 22. The duplex at Heceta Head. (A) A view of the lighthouse from the veranda. The head keeper's residence once stood in this open area. (B) A side view of the duplex. The missing mud house would balance the architectural lines of the veranda.

heating system was. Fireplaces seem to be a point of contention for modern caretakers. A general disgust about the inefficiencies of the hearths at both the Yaquina Bay Lighthouse and at Heceta Head was voiced by some of those who work to preserve the maritime history of the stations. There seems to be a common belief that the lighthouse contractors shortsightedly installed East Coast fireplaces incapable of working well on the West Coast in the living quarters of both stations. Relying on the knowledge of the curators, exploring the technical differences between the two hearth styles seemed important in an analysis of contested place. If indeed the building contractors acted in such a capricious manner, the occupants of the lighthouse dwellings were the ones to pay the price, implying that those in power once again created a contested living space for those without the power to stop them.

Unfortunately for the theory of differentiated hearth styles, discovering any practical differences between the hearths on either side of the country has not been easy. Fireplace histories do not distinguish between an East and West Coast design. Further discussions with a gentleman who installs heating systems also proved fruitless. Although he had grown up on the East Coast, he had never heard of any differences between the two and maintained that all fireplaces work on the same principles: sea level is sea level and draught flow remains the same. A similar discussion with an architect did not produce any distinctions between the two designs. He, too, had never heard of a difference between West Coast and East Coast hearths. Regardless of these findings, several people working with the lighthouses (tour guides and rangers alike) maintain that there is a West and an East Coast-style

fireplace—and the ones installed in the lighthouses discussed here are not the correct ones. As with all areas of contested space, the issues regarding the fireplaces are complex.

The argument about whether or not the lighthouse contractors unthinkingly built the station based on an East Coast floor plan is based on the fact that unlike the other three stations in this study, the Heceta quarters were built with coal-, as opposed to wood-, burning fireplaces. This change to coal is viewed as an indication that the contractor of the lighthouse complex completed the building plans without giving any thought to the natural fuel supply surrounding the lighthouse reservation. With timber available so near the keepers' homes, the logic of placing coal-burning hearths in the Heceta quarters is obscure. The original intent behind the choice of heating systems may never be known, but there do seem to be legitimate reasons for the installation of coal-burning units.

Coal heat was popular back East during the late nineteenth century. The lack of timber on the East Coast increased the need for an alternative fuel source, and for a time, coal filled this need. The West Coast was a different matter. Surrounded by dense forests, the settlers did not lack a steady supply of kindling or wood for fuel and so did not require an alternative way to heat their homes.

Due to the close proximity of firewood, the failure of coal fireplaces to catch the settler's fancy along the Pacific Northwest Coastline is understandable. However, coal was an exportable mineral no farther away from Heceta Head than Coos Bay (approximately sixty-one miles south). In the opposite direction, Toledo (roughly forty-three miles north) also had a coal vein that was worked for a time. As an

alternative fuel source, coal was entirely feasible on the West Coast. With coal readily available in the area, a coal-burning fireplace does not appear to be an unreasonable pretension. That being the case, the heating arrangements for the Heceta living quarters may not have been conceived through a lack of insight by the contractor, or a blanket application of floor plans already prepared for other stations, but rather a misplaced sense of cultural preference.

In 1893 when the Heceta Head complex was under construction, the eastern seaboard had already been incorporated for over two hundred years. The natural resources and demands of the East Coast were well-known through experience. Fashion and custom had been shaped by the geography and needs of the townships throughout the eastern states. By comparison, the West Coast had only been in the hands of the American government for approximately fifty years. Because the Pacific Northwest was so newly settled in comparison to its eastern counterpart, the regional tastes of the West Coast settlers, the natural resources in the area, as well as the needs of these growing communities themselves were not as well-established as the societal inclinations of the longer-standing East Coast provinces. The days of experimentation with what works best or what was truly useless that had shaped the regional culture of the populated cities back East, were for the West Coast still in their infancy when the U. S. L. H. E. began building sentinels along the Oregon Coast.

Oregon's regional identity grew throughout the years the state was settled. Designs and preferences that would later seem senseless to those who live in the Pacific Northwest were as yet untested opinions at the time Heceta House was

constructed. The later perceived foolishness of some of these ventures was at the time of construction in 1893 still largely unsuspected. Coal heat appears to be one of these failed test runs.

In an interesting turn of events, the Lighthouse Board does not seem to be the only one experimenting with coal in the late 1800s; other families along the Oregon Coast were also investigating the feasibility of coal heat. For example, the Hughes home, south of Heceta Head near the Cape Blanco Lighthouse, was built in 1895. Designed by Charles Eastlake (a well-known English architect of the day), the house originally contained only wood-burning hearths. Nonetheless, after the house was completed, Mr. and Mrs. Hughes remodeled the parlor fireplace into a coal-burning unit. Such a change in hearth design would indicate that people along the West Coast were trying out the new heating trend and that the Lighthouse Establishment was not alone in its choice of heating style. Nothing in the research process uncovered how the Hughes family felt about their new coal heating, but whatever their reaction, the beautiful tile fireplace remains in the house and is now a part of the tour. At the same time, however, none of the house's other wood-burning hearths were remodeled.

Trends in fashion and culture during the early years of the United States were often centered in the more populated regions along the East Coast with the West Coast lagging behind. The late-nineteenth century experimentation with coal heat in the Pacific Northwest could have been just that—an experiment. Working with what they knew was popular, fashionable, and useful, the Lighthouse Board's inclusion of a coal-burning fireplace in the homes at Heceta Head may have been a way of

carrying the trends of an established culture to a younger and still developing state. Installation of coal hearths into the living quarters demonstrates that the Lighthouse Board held the power and financial ability to transmit preexisting customs to new territories. This transference was not an unusual process for expanding governments.

Social mores often follow territorial expansion as the members of a new community seek to recreate the lifestyles they have always known. Since it was the aspirations of a government office constructing the station, and not private individuals creating a home, the addition of a coal-burning heating system would be a natural extension of their preferences and experience. The inclusion of coal heat in Heceta House may not have been an insensitive blunder but rather an attempt to build a modern residence for the new station.

In retrospect, the overlay of a remote cultural trend on a fledgling region, without the consent or request of those who were required to live with the consequences, seems thoughtless on the part of the Lighthouse Establishment. From a contemporary perspective, the board failed to take into regard the West Coast as an independent entity with its own distinctive characteristics. However, at the time that the lighthouse quarters were constructed, the addition of a coal fireplace in Heceta House was a common East Coast design effective for the communities that sparked it. The inappropriateness of coal along the West Coast was determined only *after* experimentation with coal heat had been tried and failed to take root and *after* the regional identity of the Pacific Northwest had formed. Once the coastline territory was more familiar and a unique culture blended from a mix of tradition and

geography did the recognition of the West Coast as an independent district, distinct from its East Coast counterpart, became clear. At that point, the installation of coal hearths at Heceta was viewed as foolish. Prior to the development of a regional identity, the tile hearths may have been viewed as efficient and stylish, at least by those who did not need to use them to stay warm during a storm.

In terms of contested space, the housing design of the Heceta quarters was a matter of established culture conflicting with physical environment. More importantly, the design was an *unrequested* cultural conflict with the environment. The keepers did not choose to build with coal heat; they were assigned to a station that used coal heat. An individual builder might research a new design and willingly accept the idiosyncrasies of his or her decision in applying the new technique to a home. However, personnel assigned to an already existing lighthouse had to live with someone else's building choices, whether they agreed with the decision or not. Had the keepers been allowed to choose which customs of the day they wished to implement in their lives, the nature of contested space might have been diminished or at least blended with other aspects of living at the lighthouse. When cultural preferences were forced onto the lighthouse families, albeit unwittingly by those who built the stations, then contested space increased as the keepers tried to function in a trying situation not of their own making, as in the case of the coal-burning hearths.

In some ways, a bigger question than why the lighthouse builders installed an inefficient coal-burning fireplace in a house surrounded by trees would be why the Lighthouse Board did not make arrangements to ship coal to the station? If such

a contract originally existed, when and why was it stopped? Interviews with children who lived in the duplex during the 1920s and 1930s talk about searching for pine knots to burn in the fireplaces or of not using the hearth at all because it could not heat the house. No mention of any coal deliveries surfaced in the available data. Even if installing coal hearths were a mistake, the keepers would still need a way to heat their homes. Fuels were shipped to various lighthouses for maintenance of the lights so why not to the keepers for personal heating fuel? Just how the lighthouse families were expected to meet their heating needs with inadequate hearths and no incoming coal seems to be one of the missing pieces in this examination. No answers were found in the available research material.

Heating the keepers' homes was a small concern compared with the demands of maintaining the light itself. Whenever a lighthouse was established, the size and characteristics of the lantern determined the number of assistants assigned to the station. The bigger the lens, the more manpower it took to operate. The first order lights were the largest lanterns. At a time when whale oil or kerosene emitted soot and smoke as it burned, polishing the lens was a laborious task. Comprised of hundreds of prisms, the effort involved in cleaning each piece of glass, as well as trimming the wicks, polishing the brass, and keeping the machinery in good working order seven days a week, required several hands.

Because of the amount of work there were three keepers assigned to the Heceta Lighthouse. These families formed their own isolated community in respect to their neighbors, the town of Florence thirteen miles to the south and the community of Yachats (then called Oceanview) thirteen miles to the north. Both

of these towns were small population centers.

The steep terrain around Heceta Head made travel to Florence difficult before a viable road could be constructed. A footpath existed to the south, but it was several years before the trail was developed into a road suitable for travel. Due to the lack of adequate trails overland, the beach often acted as the main thoroughfare. Samuel N. Dicken discusses some of the reasons why early settlers used the beaches for travel in his book, *Pioneer Trails of the Oregon Coast*:

Good beaches afford [sic] a means to travel either on foot, with pack animals, or with vehicles. The stage coaches used the beaches extensively. At low tide the exposed beach presents a hard, smooth surface, often described by the early travelers as a "pavement." (Dicken 1978, 7)

With the tide at low ebb, the packed sand offers a solid foundation for travel (see figure 23). Not surprisingly, use of these beach routes persisted well into the twentieth century:

[The] long delay in road building may be explained in several ways. In many stretches of the coast the beach afforded a very good road, tide and weather permitting. Tide and weather would not wait, but the early travelers were not usually in a hurry; they could and did wait for tide and weather. Road building was delayed also by the very nature of the steep terrain and the character of the soil.... But the greatest handicap to road building was the thin population and the lack of resources. Not until 1932 could it be said that the Coast Highway was complete. (Dicken 1978, 75)

Riding along the hillside was further complicated by the sheer cliff walls dropping down to the beach. Travel between coastal towns often followed the beaches until reaching easier access to higher ground. A trip south to Florence might take several hours but was often traveled when the need arose.

Later in his book, Dicken addresses the beaches near Heceta Head specifically, "Once the traveler had passed Sea Lion Point and descended to the

(A)



(B)



Figure 23. The beaches along the central coast of Oregon are often straight for long stretches, making the terrain very useful for early travelers. (A) The beachline north of Heceta Head. (B) The beachline south of Yaquina Head.

beach, [a rider] could look forward to some 60 miles of continuous beach, interrupted only by streams" (1978, 47). The wise voyager kept an eye on the tide and planned his or her trip with prudence, but a trip to Florence during low tide would be straight-forward process. Traveling north to Oceanview could also be made along the beach with an inland detour across Cape Perpetua. Once across the Cape, the beaches between Perpetua and Oceanview are straight. The completion of the Roosevelt Highway, now know as Coast Highway 101, in 1932, effectively linked the lighthouse to the neighboring communities and made travel across the beaches unnecessary.

The previous discussions about politics and lighthouses dealt with the larger infrastructure of power inherent in the Lighthouse Board and their interactions with local communities. At Heceta Head, the power structure takes on an additional intimacy in the relationships of the personnel assigned to the stations. Unlike the Yaquina Bay Lighthouse where only one keeper was necessary to maintain the light, or at Yaquina Head where the lighthouse was only three-and-a-half miles from town, the families at Heceta Head were their own community. Although guests often came from Florence and neighboring townships to attend dances and picnics at Heceta in the 1920s and 1930s, the three keepers and their families continued to function as a separate unit with their own idiosyncrasies.

A post office was set up in the basement of the Head Keeper's house, and because lighthouse families were often concerned about the teaching of their children, a one-room school was established on the beach below the station. The little school served the neighborhood families as well as the lighthouse personnel.

Perceptions of the lighthouse families and their influence on the station reach back into the first decades of the twentieth century and have been carried on in the memories of the living children of the lighthouse keepers. The surviving narratives talk about the young and spirited Jenny DeRoy who came to the lighthouse as the Head Keeper's young bride; "Cap" Herman's quiet wife who sat beside him while he drove because his eyesight was too poor to see the road without her; and the neighborhood children who played with the ocean as though the waves were a benevolent friend who had come to call. Each of these people, and the memories that remain of them, adds a new dimension to the study of contested space. With so many different personalities living in such close proximity, the nature of their shared social space was often negotiated and occasionally contested.

Although the U. S. Lighthouse Establishment was not a military branch of the government, the operating board nonetheless included maritime officers as well as engineers. With their military training, the navel and army officers added a certain amount of discipline to the lighthouse service. Rules and regulations were created to organize the responsibilities of the keepers and their families as well as to maintain the consistency of the light. Similar to a military infrastructure, duties were determined by position. Head keepers were responsible for the entire station and tended the light with the help of a first, second, and sometimes third assistant keeper.

The location of the keeper in relation to the lighthouse was a privilege of position. Whenever possible, the head keeper lived in a separate dwelling while the

first and second assistant keepers shared a duplex. The head keeper also lived closest to the light (even when housed in a duplex with the first assistant). If a keeper were promoted, he or she moved his or her family into the closer residence: second assistants moved into the first assistant's house, first assistants moved into the head keeper's residence. Whether or not such an official distinction in status existed, there are small subtle signs around the station that indicated position brought with it an increase in standing. One other distinction exists.

After listening to a tour guide discuss various distinguishing characteristics of life at Heceta lighthouse, as well as asking questions of inn keepers and rangers, there seems to be considerable reason to believe that besides proximity to the lighthouse, yet another example of rank lay in the duplex light fixtures. Within the ceiling furnishings the light bulbs were considered an electric implication of position and importance. The head keeper's chandelier supposedly contained six light bulbs. To this day the first assistant chandelier has 5 bulbs, and the second assistant chandelier has 4 (see figure 24). As odd as this sounds Heceta House is not the only lighthouse structure with such an unusual implication of rank. Leffingwell and Welty in their beautiful book *Lighthouses of the Pacific Coast* lists the following caption below two photographs of the Battery Point Lighthouse:

The Light House Establishment provided head keepers with five-light ceiling fixtures; first assistants got four lights and the second assistants got three lights. (2000, 45)

Although the number of light bulbs differs among the stations, the intent or interpretation of the bulbs remains the same. By all appearances such explanations imply that whether or not the Lighthouse Service intended to signify rank and

(A)



(B)



Figure 24. The Heceta Head Chandeliers. (A) The chandelier hanging in the second assistant's quarters. (B) The chandelier hanging in the first assistant's quarters.

authority by the light fixtures those who used the chandeliers saw the number of bulbs as a sign of prestige or, at the very least, some indication of position. Further research into the history of the light bulbs did not reveal any surviving stories of contention caused by the electric display of standing. However, the propinquity of the chandeliers to the housing status shows that lighthouse personnel were aware of the differences in rank and considered it worth remembering as the Leffingwell caption and the Heceta house narrative implies. The evidence of such subtleties in position applied to the light fixtures also indicates a socially contested space perhaps otherwise ignored without the visual reminder. The preservation and oral transmission of the chandelier narrative suggests that either someone felt the deficiencies of a lesser position or the empowerment of a higher grade.

Even if rank were not overtly supported by the Lighthouse Board, the combination of position and Lighthouse Service uniforms supported, in someone's mind at least, the subtlety of stature or why else would the stories about the chandeliers told by the Heceta House tour guide and the Leffingwell/Welty book have survived the passing years? There can be little doubt that the discipline of the lighthouse Board filtered down to the keepers. It is possible that some of their military focus did as well.

Due to the unified approach to light-tending fostered by the Lighthouse Board, spouses were also caught in the pseudo military structure of the U. S. Lighthouse Service. Specified in a reproduction of the 1902 edition of *Instructions to Light-Keepers*, a handbook created by the Lighthouse Board, were provisions

governing the private as well as occupational space of the keepers.¹

The following analysis of the Jenny DeRoy narrative is based on the expectations outlined in the reproduction of the 1902 handbook published by the Great Lakes Lighthouse Keepers Association, expectations that were clearly stipulated:

The utmost neatness of buildings and premises is demanded. Bedrooms, as well as other parts of the dwelling, must be neatly kept. Untidiness will be strongly reprehended, and its continuance will subject a keeper to dismissal. The premises must be kept clean and well whitewashed, grounds in order; all the inside painted work of the lanterns well washed, and, when required, retouched with paint. (1989, 6)

To ensure the compliance of a keeper and his or her spouse, white-glove inspections were carried out without warning. Demerits were issued to an ill-prepared wife and her keeper husband. Those few women who were both lightkeeper as well as homemaker had twice the work to maintain the station at the prescribed level.

A close analysis of the Jenny DeRoy narrative related to visitors during a guided tour of Heceta House is a good example of socially contested space on the distaff side. Jenny arrived at the Heceta station in 1920. During her stay at the station (1920 – 1925), Jenny asked her husband, Frank DeRoy, to put linoleum on the kitchen floors and paint the interior of the residence with pastel colors. The wives of the assistant keepers tried to dissuade the Head Keeper's wife from painting with color, but she was determined. Underlying the narrative's obvious text is the idea that Jenny's creativity and spirit were all that was necessary for her to succeed against the wishes of the lighthouse regulations.

Today, the words of the tour guide, when considered in a modern context rather than the logic of the times he was relating, make the wives of the other

keepers appear foolish and/or petty as they tried to discourage Jenny from changing the white walls of her home. But careful attention to the regulations governing light-keeping, and a return to the original context of the wives' comments, highlights a subtle subtext for their behavior. It could be that they were trying to protect her. Anyone failing to meet the requirements outlined in the instructions manual ran the risk of earning bad marks for the station. The wives may well have been thinking of the quarterly inspection when they cautioned Jenny against making too many changes.

Included in the light-tending handbook were the following guidelines for paint:

Inside Colors.

White _____ For the interior of lanterns, *and generally for all interior woodwork* except hard wood....

Whitewash _____ For walls, cellars, and outhouses, and roughboard work, when painting has not been authorized....

All painting, whitewashing, and application of other washes that may be necessary for the cleanliness and good appearance of the structures at light-stations shall be done by the keepers and assistants of such stations, *under the direction* of and supervision of the inspector of the district. (Great Lakes Lighthouse Keepers Association 1989, 53, emphasis added)

If Jenny was working without authorization from the district inspector, the other wives at the station may have been cautioning her to reconsider the consequences of her actions. Had the inspector not been pleased by the changes Jenny made, the outcome would have been far different. Instead of the commendation and support they received, Frank and Jenny DeRoy would have received demerits for their failure to comply with regulations.

Because the inspector's response was somewhat at odds with the handbook of instructions, the narrative says as much about the inspector as it does about

Jenny. The inspector is the wildcard in the tale. Had the requirements of the Bureau changed over the years? Was this particular inspector more open to independent thinking on the part of the lighthouse families? Was he less tied to the stringent guidelines he was sent to inspect than other inspectors might have been? Was the Lighthouse Bureau less concerned about color than the Lighthouse Board had been? No answers to these questions came through in the stories related by the tour guide.

In an economically-minded occupation that required paint brushes to be used until completely worn and then *returned* to the supply agent and who charged the keepers for any injury done to the station through loss, damage, or waste (Great Lakes Lighthouse Keepers Association 1989, 10-11), the inspector's enthusiasm over one of the keepers laying linoleum (i.e., nailing into, gluing, or otherwise covering the hardwood floors) without permission seems out of place. The easy acceptance of pastel painted walls when white is clearly the specified color for painting is equally peculiar.

It would be interesting to know the rest of the narrative. Since Jenny was encouraged to continue her remodeling, was the Lighthouse Bureau changing the restrictions that had previously been imposed on the keepers? Did the other wives begin to decorate their homes—or did Jenny's role as the head keeper's wife provide sufficient authority for her to act exclusively while not extending to the wives of the first and second assistant? What impact was there on the relationships among the wives? Although the modifications to the keeper's residence seem to be a small issue, the possible repercussions of Jenny's success on her interaction with the other

wives makes the narrative a fine example of socially contested space. Again no insights into these relationships came out in the interviews conducted for the oral history project at Heceta Head or from the museum caretakers, but the other lighthouse wives must have been surprised by the praise Jenny received.

Independent thinking was not necessarily a prerequisite for lighthouse duty. The instruction manual tried to cover as many contingencies as possible so that the keepers had guidelines to help them in their work. There is an entire chapter on the correct way to paint. In it the following directions are listed:

The large paint brushes are used for putting on priming and in painting over large surfaces, which require considerable quantities of color.

The small brushes are used for parts to which the large brushes, from their size, can not [sic] be applied.

Flat brushes are used for sashes, for varnishing and for painting in lines or narrow spaces.

When the bristles of a brush get loose, drive a few thin wedges of wood inside of the binding twine or thread, which will render the whole fast again.

A different brush should be used for each color. (Great Lakes Lighthouse Keepers Association 1989, 52)

As these directions show, the Lighthouse Board was very particular about how the lantern was tended and how the station was maintained. Their belief being that any laxity in personal behavior would transmit to poor performance in tending the beacon. Conformity to the Board's regulations was required on several levels, whether referring to the way the lens was polished or to which brush was used for painting.

More and more, the inspector's reaction to the changes Jenny made—and his encouragement for her to continue her remodeling—seems curious. Perhaps the Lighthouse Bureau was more lenient in their expectations than the previous Board

had been, but the caution of the other wives to Jenny's actions indicates that too much independence was still frowned upon by the Bureau. This group monitoring of behavior illustrates how closely tied the occupational consequences of the lighthouse families were. If one of the keepers received a demerit for their conduct or house-keeping, the detriment was felt by the other families at the station as well.

When people are forced to live in close proximity, they often develop ways of delimiting space and upholding their individual roles within the context of the whole as well as monitoring the other members of the group. Lighthouse families sometimes lived with only a wall separating them. Under these conditions, socially contested space can form around any aspect of daily life. To counter this tension, people often draw imaginary lines to help them live in peace with their neighbors. Even something as simple as mowing the lawn can have its rules as the memory of Mary-Lou Johnson Ryan, daughter of assistant keeper Albert Johnson, indicates:

Mrs. Herman always mowed the lawn, their side of it, their half of it, you know. Dad would mow from the flag pole over to our fence, and she would mow from the flag pole over to her fence. (Ryan 1997)

The houses were situated next to each other within a picket, and later a wire, fence. The grassy area between the two buildings was open. While mowing the lawn could have been done by one person, the families acknowledged the invisible dividing line between the houses and maintained only that part of the lawn for which they were responsible.

This mini-narrative opens up another aspect of contested space: neighborly involvement. Mrs. Herman seems to have been a quiet woman who took care of whatever needed to be done. Clifford "Cap" Herman was the head keeper at Heceta

Head from 1925 to 1950 and a talker by reputation. By way of contrast, Mrs.

Herman was said to speak very little. Stories about Cap's eccentricities came through in the *Passport in Time* interviews, but Mrs. Herman's personality seems to be more elusive. Little is said about her and what small pieces that do come through are contradictory. One memory recalls her as being a nice, pleasant woman and another as being angry and mean.

In such defined locations where people see each other daily across a lawn, the lack of information about Mrs. Herman shows the different ways people organize their social environments. Lightkeeping, even at a station with several families, was not a communal occupation. The lighthouse families led individual lives, some families mixing more than other personnel.

Connie Small, a former lighthouse keeper's wife unassociated with Heceta Head, talks about living on Seguin Island in her book *The Lighthouse Keeper's Wife*.

With two families besides us on Seguin there was much more opportunity to see other people than there had been on Avery. A couple of assistants changed while we were there, so in all there were a number of people. I wasn't as sociable as I should have been, perhaps. I'd been by myself for so long I didn't have that outgoing feeling that I should socialize very much with people. We were friendly with the others, but not very close to them.... All of us had much to do, so, except for social occasions like holidays and get-togethers, I didn't spend very much time with the others. (Small 1999, 81)

Mrs. Small's experience within the lighthouse community of Seguin appears, on the surface at least, to be similar to that of Mrs. Herman. Although assigned to the Heceta station, the families lived apart from the lighthouse and their work. In this way, each group was able to structure its social environments to function within the occupational framework of lightkeeping. Some personalities remained more reclusive than others as each individual decided for him or herself how much

involvement with the other lighthouse personnel he or she wanted.

The nature of contested space thus far has been confined to how adults deal with the demands of either their physical or social environments, but an investigation of the Heceta Head Lighthouse includes the effects of contested space on children as well. Young people view their physical world much differently than do adults. They also differ in their assessment of danger. Although many parents may have worried about the safety of their children at a lighthouse, the children themselves were often unconcerned. What might be a contested environment to a mature adult often remained uncontested to a child.

As a young girl, Dorothy Hatch Wilkins came to the lighthouse reservation with her father who was hired to teach at the Heceta school in 1929. In an interview conducted through the Heceta Head *Passport in Time* project, Ms. Wilkins recalls the adventures of her childhood:

When I went [near the ocean], I usually went by myself. That was my playground. That beach was my playground.... I would spend hours on those rocks with the little pools, you know, with the crabs and everything in there. And the creek. Oh, I loved that creek. I would spend hours there. One time we had a terrific storm, and those breakers, I did not know breakers came in like that. They were as big as a house, and come [sic] up the creek, you know, and crashed against the under footings of the bridge. And I just thought what fun it would be, you know, to play tag with the ocean. And so I would run up to the under footings of the bridge, you know, when I saw it coming, I would run up there, so I would not get wet. All that water went down, you know, all the ocean water went down around me, and then, I'd, you know, run down, and wait until another one came back. (Wilkins 1997)

Instead of fearing the powerful undertow in the water or being concerned about drowning, the young girl played chase with the waves as a favorite game.

Ms. Wilkins goes on to tell about her father catching her playing tag with the sea:

So I did that several times, and I was just having a marvelous times, and my father came looking for me. And there I was, up on the bridge, and the water was swirling up behind me, and he yelled at me, "Dorothy! Get out of there! Get down! Come home!" That sure was fun. (Wilkins 1997)

When asked if her parents worried about the ocean, she had a ready answer:

Uh, probably, but we always went like that. To us, people from the city got hurt by the ocean. We never did. People would come down, and they would get caught in the rip tide, and all this kind of stuff, and they would drown, but not us. (Wilkins 1997)

Ms. Wilkins is careful to make the esoteric/exoteric distinction in her memory. To her way of thinking, the lighthouse children, or any child who lived by the ocean, knew how to handle themselves around the water. The ocean that was so dangerous to an outsider unfamiliar with the sea's danger was often a toy to the children who lived near the shore. Wilkins displays the fearless nature of a secure child. She took a storm or a heavy sea in stride. For such a carefree child, the physical environment surrounding the lighthouse was not contested, no matter how much worry her parents may have suffered.

Mary-Lou Johnson Ryan has her own memories of playing around the station. The cement walkway she mentions led from the keeper's quarters to the lighthouse and allowed those moving between to stay out of the mud:

[E]verybody had their rain coats. And if it was real rainy. . . had rubbers to put on. And I do not remember rain hats, but we were well protected. And that sidewalk winding up to the lighthouse, that was one of my fun things. I would go up to the top and I had a broom stick, and I, if I wanted to go fast I'd just stand up. If I wanted to slow down, got going too fast, then I'd just sit on that. It would be like a brake. Speed skate....

We would go climb on the rocks. And play in the storms. And in the nice high waves, there was one rock down there where the water came in kind of churning, you know, between the two rocks and the island. OK. And there was a little rock, and I would go on the rock, and try to judge the waves, so that when it rushed up on it, I would be back. (Ryan 1997)

When asked if she ever fell in, Ms. Ryan replied, "No. Oh, no. I did not do that. I was too careful" (Ryan 1997), implying, as Ms. Wilkins did, that those who lived at or near the lighthouse knew the dangers of the ocean and how to protect themselves. The physical nature of contested space then becomes a matter of insider/outsider, adult/child. What appears to be contested by exoteric non-members of an area remains uncontested by esoteric members of a community. The dangers that would frighten an adult could be great fun for a child. Such a distinction is important to this discussion of contested space as contested environments are often defined by the individual or group feeling constrained, threatened, or challenged. To an outsider without the same investment as a member of the insider group, an area hotly contested by insiders may be meaningless and not at all contested. Or, as in the above circumstances, a child unaware of the sea's danger does not consider the steep cliffs, water soaked rocks, and winter storms surrounding a lighthouse contested.

Heceta Head is the final lighthouse in this analysis. Within the station's history contested space includes the nuances of cultural preference and transmission, a pseudo military infrastructure, socially contested space, and the difference between how adults and children view a contested environment. Further complicating this cultural diversity is the individual space negotiated by the lighthouse families who needed to find a way to live closely together. Although the lighthouse families were the linchpin that kept the station running, each of them determined through their daily actions whether or not they considered the environment in which they lived and worked contested and in what ways their surroundings affected them.

End Notes

¹ In 1910 the Lighthouse Bureau replaced the Lighthouse Board. No records uncovered during the research for this thesis implied that the new Bureau ran the nation's navigational lights with fewer expectations of their keepers than the previous governing board; however, no written instructions from the Bureau to the light-keepers were available for examination.

CHAPTER VII

CONNECTING CONTESTED SPACE

The four lighthouses around which this thesis centers have been addressed separately by following the progression of their construction dates. This approach offers three advantages. First, a chronological organization provides a necessary link between culture and settlement. Since each station displays the trends common across the United States as well as the lighthouse tenets prevalent at the time the sentinel was established, these preferences, both national and occupational, are discernible in the housing design and the lifestyles of the lighthouse families. Aligning the analysis of the lighthouse with a concurrent discussion of the larger general issues of the country reveals the intimate ties of commerce and culture, settlement and tradition, expansion and colloquialism.

Second, although working within the framework of linear time lacks the spatial continuity of progressing geographically along the shoreline, the focus on building dates parallels the building of the stations themselves and therefore illustrates the development of northwestern settlement and the regional priorities of Oregon's ports. As ports grew or diminished in importance, the politics behind the Lighthouse Board determined the necessity of a lighthouse in any given area and the needs of marine traffic throughout the nation.

Lastly, the chronological structure offers the cleanest scaffolding for understanding a contested environment. With each lighthouse discussion, the daily challenges of the lighthouse families, keepers, and builders uncover the varied layers of contested space from the larger physical contests with nature to the equally

demanding albeit more subtle aspects of socially contested space between keepers or families. Rather than working backward in time, or jumping through history with each new beacon, addressing the lighthouses successively from oldest to youngest provides the greatest continuity.

The discoveries made within this examination demonstrate that the contested space encircling a lighthouse is far from the pure conflict between humans and the sea first proposed. The examination of sentinels in general, and the central Oregon Coast specifically, confirms that a lighthouse, although marking a specific shoreline where physical danger is present, reaches into the heart of the community as well as outward toward the larger venue of national culture and regional identity. A diagram helps to illustrate the complexity of this theory (see figure 25). The interweaving nature of the circles indicates how precisely the many aspects of light-tending coalesce into the generation of contested space. The discussion developed on the following pages draws attention to specific meeting points along the circles and examines the relationship within the larger context of contested space through examples brought out in the body of the thesis.

National / Physical

The thousands of miles of shoreline encompassing the United States poses a great many risks to shipping. Jagged rocks, furious storms, barrier islands, and other natural hazards cause problems for maritime commerce. This danger was even greater in the years before radar and global satellite positioning could warn and guide the massive sailing fleets of the 1800s. The varying demands of the coastline, rivers, and lakes of the nation required diverse forms of navigation aids to help

Points of Contested Space

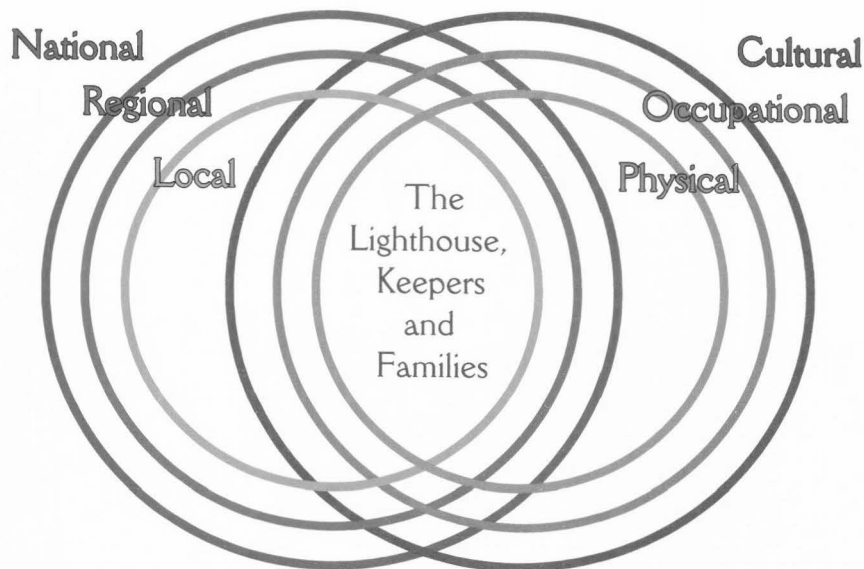


Figure 25. The interconnecting points of contested space.

mariners survive the dangers of life aboard ship. One of these tools has been the lighthouse.

Regional / Physical

The Pacific Northwest does not contain the treacherous waters so much a part of other regions of the country. Nonetheless, for the windjammers plying the Oregon seacoast in the nineteenth century, the liabilities prevalent in the shifting bar ports and changing weather patterns, as well as the lack of abundant safe coves and natural harbors, made marine travel in the north Pacific dangerous.

Local / Physical

The line between land and water is where ships are most often in danger. A vessel that might safely reach port on a well-lighted coast may founder on a darkened, unmarked reef. Lighthouses were invented to prevent such waste. Centuries of diligence and experimentation crafted a beacon for almost any danger. Towers became stronger. Lanterns became brighter. And an understanding of the sea's might became manageable. But in all of this advancement, for centuries, the stability of the light remained in the hands of the keepers sent to tend the lanterns and monitor the shoreline. The physical jeopardy of these shorelines is where the original proposition of this thesis began. The examples that follow show why the central Oregon Coast was in need of demarcation if the area's shipping fleets were to succeed and commerce prosper.

In Newport, the jeopardy of crossing the Yaquina Bar hindered the harbor town's dream of becoming an international seaport. Too shallow for large ships to

pass through safely, the bar, with the added danger of high winds and shifting sand, made entering the bay treacherous in 1871. The jetties that would stabilize the channel at the harbor's entrance were still many years in the future. Further north of the bay, the Yaquina headland hid the bay entrance from ships sailing south. Without a light on the point, ships coming down from the north were left without a guiding light from which to check their position. The ragged shoreline surrounding the Head made landing supplies for the lighthouse difficult though not nearly as dangerous as at Tillamook Rock where the seas were so treacherous no boats could dock. Near Tilly the waters roiled and the winter gales often swamped the station with monstrous waves. The location is one of extremes. Further south an unlighted strip of blackness stretched for miles, leaving the mariner alone to find his or her way in the dark. A submarine bank added to the danger. So Heceta Lighthouse was constructed to aid the sailor. Each of these areas then presented a different physical challenge to ships moving through the district and each lighthouse in turn included aspects of contested space for the keepers and their families sent to tend the light.

National / Occupational

The U. S. Lighthouse Establishment was responsible for all lighthouses along the nation's coast. Consequently, the larger needs of the country often overrode the desires of local communities. The Lighthouse Board in an effort to meet all the demands for navigational aids often discriminated between the aspirations of a few local communities and the larger needs of national and international commerce. Only when forced to conform to the wishes of congressional representatives did the Board build a station where they did not believe it was needed.

Regional / Occupational

The Oregon Coast was still largely unknown in the 1850s although early European explorers had taken soundings and surveyed various parts of the shoreline. Few communities existed along the Oregon seacoast, and the obligation to light the shores of the Oregon and Washington Territories did not rise quickly to the foreground since the Lighthouse Board did not consider the Pacific Northwest a threat to shipping. Nevertheless, as the Oregon Territory became more settled and sailing ships plied the seacoast in greater numbers the urgency to warn vessels of the present dangers increased. To that end, the U. S. Lighthouse Board began to invest in lighting the beaches and rivers heretofore unmarked.

Local / Occupational

Three of the lighthouses under discussion were seacoast lights independent of local ties. Their role was to guide the larger shipping fleet along the coast. Notwithstanding this aspect of their larger connection to international waters, the beacons became for the nearby harbor towns not only a marker of physical danger but a symbol of authority as well. Although in general the lighthouse stands alone on a windy bluff, headland, river, or beach, it nonetheless works as part of a whole. Local fishing fleets and neighboring businesses depended on the success of their seaports for their livelihood. If movement in and out of the home harbors was too difficult for shipping, Local trade felt a great fiscal loss. Newport is the only harbor community in this study.

The mouth of the Columbia River is another good example of

local/occupational contested space. Prior to the construction of the West Coast lighthouses, the expanse near the Columbia River Bar was known as "The Graveyard of the Pacific." Ships making for the river's entrance faced thick fog and turbulent currents, although even in good weather crossing the bar was perilous. Construction of the Tillamook Rock beacon was another effort to give the ocean running vessels an additional lighted sector from which to navigate a good sea lane on their approach to the river.

National / Cultural

As noted in several places within this study, the Victorian ideals of the 1870s were transferred to the West Coast through the quarters designed for the keepers. The central hallways so important to Victorian family life and their division of public and private spaces are found in the Yaquina Bay and Yaquina Head lighthouses. The later changing fashions of the age were reflected in the altered floor plan and heating arrangements at Heceta Head. The addition of a veranda and a vestibule on the Heceta Head home provided the families with the opportunity to participate in the changing social rituals of the day.

Regional / Cultural

The regional identity of the Oregon Coast was in its infancy during the latter part of the nineteenth century. Areas of the coast range were beginning to open when the first lighthouse on the central coast was constructed. Twenty years later, when the Heceta Light was established, more communities had formed along the shoreline, but they were small in comparison to their eastern counterparts. The

attributes of a "Pacific Northwest" were still coming together. The distinctiveness of the region was in the early process of being shaped by the people moving in.

The struggles faced by these early pioneers as well as the unique environment of timberland and fishing would one day separate the traditions of the West from the eastern societies that gave birth to the expanding settlement of the Pacific Northwest. Nonetheless, because of the lack of regional identity at the time the lighthouses in this analysis were constructed, some of the widespread preferences of the country transferred to the West Coast lights unwittingly conflicted with the environment of the Oregon Territory.

Local / Cultural

The lighthouse families were tied to the larger fashions of the day through the decoration and organization of their homes. Their tastes were expressed through such means as the draperies that graced their windows or the plants they cultivated. The daily habits of the lighthouse personnel express the determination of the lighthouse families to succeed at the stations. This resolve to win out in a contested environment is most dramatically demonstrated in the gardens the keepers and their families planted. Although family traditions sometimes required adaptation to the Pacific Northwest, heritage and values remained important to the lighthouse families as indicated by the few remaining stories about the Pierce family at the Yaquina Bay Lighthouse and the plant-life introduced at the Yaquina Head station.

As mentioned earlier, the keepers and their families were both local settlers and servants of the area they guarded. The diversity of the lighthouses constructed

on the Oregon Coast between 1871 and 1894 illustrates the hazards peculiar to the shoreline as well as the labor required to establish the new lights in a densely forested, largely isolated, section of the north Pacific. More importantly, this analysis of contested space asked questions regarding the keepers and how they dealt with a contested environment when humanity took a stand against the sea.

Examining the early years of the central Oregon Coast through the lens of contested space shows the formidable tasks the lightkeepers and their families faced in tending the various stations. High winds, dense fog, and violent storms took their toll on the day-to-day lives of the lighthouse families. Gardens were braced against gale force winds and society was occasionally limited to the personnel assigned to the station. The greatest contests were often the one impacted by the physical environment and yet the subtlety of socially contested space is demonstrated in the keepers' reaction to isolation and limited community.

Current issues of contested space include water rights in the west, rain forests throughout the world, ethnic heritage in Ireland, ownership of Native American lands, and others. With so many people vying for a limited amount of physical space, as well as the liberty to retain, or create, their dreams, conflicts arise whenever two or more groups or individuals want the same territory for their own purposes. The analysis conducted in this thesis shows that the battle for contested space has existed throughout history in some unexpected ways.

By taking an intricate look at four lighthouses along the central Oregon coast, the complexity of contested space is seen to play itself out on many levels. No one

area of contention existed in the lives of the lightkeepers and their families, and no one solution fit each situation. The challenges of the sentinels depended on the needs of national, regional, and local shipping as well as the lighthouse families and their ability to adapt to the requirements of the beacons and the landscape. Nevertheless, regardless of the difficulty, the families stationed along the coast ensured that the lantern illuminated the darkness and provided passing ships with assurance that someone was on watch during the night.

To the keepers on Tillamook Rock, their physical environment was deeply contested. They faced a natural threat unique to the other stations under discussion here. The other lighthouses were farther removed from the waves that surrounded the stations and so the families did not have to live in wet clothing when the lantern was flooded or the station submerged in a storm. By comparison, the keepers of Tillamook Rock did not have the worries caused by a single grain of sand as did the lighthouse family at the Yaquina Bay station.

The Yaquina Head Lighthouse also faced contested issues unique to its location. The high winds that swept the station carried sand and gravel up from the beaches. A tall, plank wall was placed along the front of the duplex to protect the windows and families from the dangerous debris. Poor living arrangements also challenged the second assistant keepers on the headland and occupational politics neglected their needs for many years. Yet in all these situations, the keepers were expected to maintain their homes to the finest standards of cleanliness—regardless of the challenge.

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APPENDICES

APPENDIX A

UNIQUE LIGHTS MARK THE COASTLINE

Due to the curvature of the earth, the vagaries of weather, and other deceptions inherent to working on the water, gauging distance between vessels, or between ship and land, is all but impossible. Because visibility is so often variable, the approximate miles of visibility listed in table 2 are disparate pieces of information brought together here for the reader's convenience. Any missing data is due in large part to lack of information. Since the lights were tracked by focal range not nautical miles, unless a specific light was measured, its range in nautical miles remained vague. In this respect the candlepower, or order of the lens, gave the sailor little actual information about position. Stevenson stresses the ambiguity of light at sea:

It is now recognised that navigators cannot be expected to distinguish or identify lighthouses by their apparent brilliancies: the varying conditions of the atmosphere render such hopes quite vain. (Stevenson 2002, 90)

To overcome this uncertainty, lighthouses were designed with distinctive characteristics. In this way, the sentinels acted not only as beacons of warning throughout the night but as day markers as well (a day marker being a discernible feature defining individual locations). These attributes included color (of both the tower and the lens), shape, order, and light pattern.

To distinguish one lighthouse from another, the buildings themselves were also designed to stand as a striking relief against the backdrop of their environments. This made the sentinels easier to see from the deck of a ship and instantly recognizable to sailors. Along the eastern seaboard, some of the taller

towers were painted contrasting colors to make them distinctive from other towers nearby. On the central Oregon Coast where spruce trees and additional evergreens create an emerald backdrop, the towers were painted white.

The lens classification, whether oscillating or fixed, also separated the lighthouse beams from a neighboring light within a region. Individual characteristics of the beacons were listed on navigational charts so mariners could determine their position by correlating the attributes of the towers before them. All characteristics were distinctive so as not to beguile sailors into erroneously mistaking one location for another. The mariner's dependency on a light's characteristics was so complete that maintaining the exact rotation of a patterned light was vital for shipping. If for any reason the turning mechanism of an oscillating light broke down during the night, the keeper was expected to manually operate the cycle at the precise revolution until the equipment could be repaired. Failure to sustain the correct cycle provided false information to ships at sea and risked causing vessels to founder as they came about to avoid a danger that did not in reality exist.

Along a similar vein, any change in light characteristic was immediately posted through a "Notice to Mariners" column published in local newspapers. An old story about a captain who had not received the latest update on the relocation of a familiar beacon periodically shows up in lighthouse literature. While the skipper had been at sea, the sentinel marking the entrance to a channel had been moved from one side of the river to the opposite bank. Ignorant of the change, he entered the harbor at full speed, confident that he knew his position, and foundered his ship. Such a devastating loss would not have happened had the captain stayed current

with the notices. Horace Beck, a man who has sailed the world's oceans throughout his life, has commented that many an intelligent skipper, unable to distinguish the lighthouse characteristics in front of him and therefore note his position with certainty, has waited at sea until he could confirm the exact attributes of the beacon in the distance (Beck 2002). A wrong call could lead captain and crew into an unexpected channel and possible shipwreck.

Reckoning a ship's position has caused considerable trouble over the centuries. Although humans learned to use the stars to guide them, celestial navigation had its limitation:

For the best part of 250 years from the time of Magellan, navigators in the Pacific struggled.... The estimate of dead-reckoning, depending on inaccurate instruments and being affected by such unknown factors as leeway and currents, was so dubious that the wise captain stood far to the west or east of his destination, so he could find it by sailing along its latitude, keeping course by the altitude of the Pole Star or the sun on the meridian when he could see them. (Morris 1987, 12)

For centuries, latitude was calculated with the use of well-known instruments, but a consistent way to gauge longitude was not discovered until 1761. Prior to this date, clockwork mechanisms of the day were incapable of maintaining a steady accounting while at sea. With the invention of the chronometer in the eighteenth century, regular time could finally be sustained against the continuous rocking motion of a ship. The new timepiece made reckoning longitude a stable computation. Yet even with the innovation of the chronometer, complete certainty of position remained dubious until a worldwide consensus was reached as to which time standard the clock should be set (Morris 1987, 12).

As insignificant as this struggle with longitude sounds in the days of GPS, the calculation of latitude and longitude were often carried out in a setting of vast open spaces. If a miscalculation was made or a storm blew a ship off course, a vessel's position could remain uncertain until the crew reached landfall. Seeing physical evidence of his position assured the mariner that all was well. Recognizing a local fixed point marked on his navigational charts, he could calculate a new position. The lighthouse then often acted as such a gauge. Standing out against the darkness, the beacon declared its position. Not confined to giving aid through the night, during the day the lighthouse towers were often a welcome sight to sailors long surrounded by water as the ship reached its destination.

APPENDIX B

MULTIPLE PURPOSES FOR THE LIGHTHOUSE

The lighthouse served several purposes: a visual verification of position, a warning of imminent jeopardy, and a fixed point to help determine course. By placing one lighthouse in line with a second station, the ship's navigator could reckon a sure passage (see figure 26). In this way, a vessel could negotiate the waters ahead and enter port unharmed (wind, waves, and weather notwithstanding). For instance, the 1881 *Coast Pilot*, a book detailing all navigational aids across the United States, supplied instructions for entering Yaquina Bay:

After sighting cape [sic] Perpetua steer North a little westerly for the Yaquina. When up with the entrance, bring the beacon of the north head to bear N.N.E., and steer for it 1 1/8 miles, until the outer or western range beacon on the southern side bears N.E., [then] steer N. 1/3 W. for about half a mile, until the two beacons come in range. Cross the bar on this range, steering E. by N. 1/2 N., and continue this course until the beacon on the north head bears N. by W. 1/2 W., [then] steer N. by E., and round the point at a distance of about 100 yards, until abreast the town of Newport, when anchor in 4 to 5 fathoms water. (Imray 1881, 246)

To accomplish this safely, both lights had to be within range simultaneously.

On the eastern seaboard where the beacons were often only eight miles apart, sighting on two lights would not have been a problem. However, by the mid-1800s, plotting a course off of a dual lighthouse system was impossible in the Pacific Northwest as no lights whatsoever existed. Holland, discusses this disparity in his history:

The West Coast of the United States proved unique. When this country acquired California at the end of the Mexican War, and secured sole possession of the Oregon Territory as a result of the treaty with England in 1846, it found there was not a single lighthouse nor other aid to navigation

from the southern end of California to the northern tip of Washington, nor had there ever been one. (Holland 1988, 153)

The northern Pacific was alone in the night.

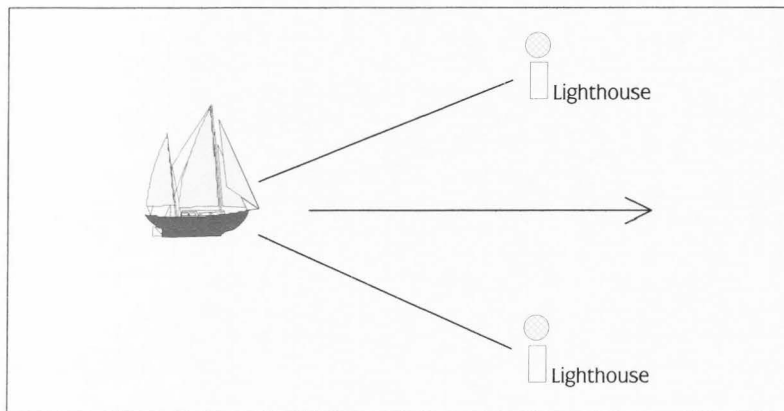


Figure 26. Using two beacons to set a course.

After acquiring the West Coast regions, the United States government set about lighting the extensive seaboard. In 1848 the Cape Disappointment Lighthouse near Fort Canby, Washington, was authorized. In 1857, the Umpqua River Light was constructed near present day Winchester Bay, Oregon. The sentinels were separated by more than 200 miles. With the distance so great between the beacons, sailors moving up and down the West Coast did not have the option of plotting a course using the combined lights of different stations. Without the warning beacon of a lighthouse to mark the dangerous harbors of the newly settled shores, mariners were at the mercy of a capricious sea and an unknown territory. During a night so dark no distinguishable point could be measured, a light shining from the

approaching shoreline could make the difference between a ship reaching safety or lying wrecked on a darkened shore. Despite this hazard, the rest of the Oregon coastline remained unlighted for several years.